153354

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/785-3912

Refer to: L1630200005 -- St. Clair County
Sauget Sites (Area 1) -- Sauget
Superfund/Compliance

June 23, 1994

Mr. Thomas J. Martin
Office of Regional Counsel
USEPA Region V, CA-3T
77 West Jackson Blvd.
Chicago, Illinois 60604

Dear Tom:

As promised, please find enclosed the information you had requested at our June 21 meeting. The information includes a list of residential addresses along Judith Lane and Walnut Street whose basements were sampled last fall, a memo summarizing recent events at Site G, the signed Consent Order between the State of Illinois and Monsanto Company for the performance of an RI/FS at Site R, names and addresses of three individuals who hauled wastes from the Monsanto Queeny plant to Site R, a list and description of products manufactured at the Krummrich plant and background information concerning the "Cerro Copper drum incident" that includes the names of the injured individuals. I am in the process of obtaining information on SWMUs at the Krummrich plant and will send you that information once it becomes available. I would also like to recommend that you give Jeff Gore a call about the "evidence" that was found at Site G several years ago.

If you have any questions or concerns, please call.

Sincerely,

Paul E. Takács, Project Manager
Federal Sites Management Unit
Division of Remediation Management
Bureau of Land

Enclosures

cc: Terry Ayers (w/o enclosures)
Jeff Gore, USEPA (w/o enclosures)
Division File (w/o enclosures)

MEMORANDUM

Date: January 20, 1994

From: Paul E. Takács, IEPA

To: Regional Decision Team

Subject: Sauget Sites Area 1 Sites -- Briefing Memorandum

This purpose of this memorandum is to familiarize the Regional Decision Team with the Sauget Area 1 Sites and to provide a set of proposed measures that need to be taken at this site.

This memorandum could not have been provided without the assistance of the SACM team members. Besides myself, this team consists of Sam Borries, Thomas Martin, Alan Altur, Sally Jansen, Jeff Gore and Susan Pastor.

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

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BRIEFING MEMORANDUM - SAUGET AREA 1 SITES
PROPOSED NPL SITE
SAUGET AND CAHOKIA, ILLINOIS

The purpose of this memorandum is to brief the Regional Decision Team on the background and current status of the Sauget Area 1 Sites. The Illinois Environmental Protection Agency (IEPA) has met with representatives of USEPA in regards to proposed immediate measures which need to be taken at these sites. This memorandum will provide a detailed description of these and other actions which must be considered at the Sauget Area 1 Sites.

I. Background

One of the most highly contaminated areas in Illinois are the Sauget Area 1 Sites. They comprise three hazardous waste disposal landfills, a formerly used waste impoundment, two abandoned gravel pits and five intermittent segments of Dead Creek. These sites had allegedly received hazardous materials/wastes from local industries that became established in this vicinity around the turn of the century. The primary disposal methods included direct industrial wastewater discharges into the five identified segments of Dead Creek, and controlled/uncontrolled disposal at the other six sites. The contaminants found at the Sauget Area 1 Sites consist mainly of chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines, naphthalene, PCBs and PNAs. These sites were aggregated together on the basis of their relative proximity to each other, shared watershed, nearly identical contaminants, and a common property owner at many of the sites during the periods of disposal. Provided below is a brief description of each site:

Site G

A former surface/subsurface hazardous waste disposal site which was originally used as a gravel pit. Site G occupies about 4.5 acres and is littered with demolition debris, metal wastes and corroded drums. Oily and tar-like wastes are found mainly in areas where drums are present; however, most of the landfill is only partially covered with fly ash and cinders. IEPA estimates that there is approximately 22,000 yd^3 of contaminated fill and about 60,000 yd^3 of saturated chemical waste materials. Surface soil sampling revealed PCBs (74,000ppm total), 1,4-dichlorobenzene (22,000ppm), PCP (21,000ppm), 4-nitrophenol (1000ppm), 2-nitroaniline (220ppm), and PNAs. The primary contaminants detected in subsurface soils included naphthalene (5,429ppm), PCP (4,769ppm) and 4-chloroaniline (231ppm). Access to the site is restricted by a chain-link fence installed by USEPA. Aerial photos show major disposal activities occurring at Site G from the early to mid-1950s to the mid-1960s, after which sporadic disposal occurred until it was fenced in 1982.

Site H/I

Both Site H and Site I are former gravel pits with only portions of Site I filled with chemical wastes. Site H is about 5 acres and is completely covered with fly ash and cinders while Site I, having the same cover materials and being completely covered, is approximately 55 acres. Aerial photos indicate that waste disposal at these sites began prior to 1937 and continued until the mid- to late-1950s. IEPA estimates the volume of fill material to be about 116,000 yd^3 and saturated chemical waste material about 250,000 yd^3. Predominant contaminants found at Site H included dichlorobenzenes (50,242ppm total), 1,2,4-trichlorobenzene (7,581ppm), naphthalene (2,265ppm), 4-nitroaniline (1,834ppm), PCBs (1,800ppm) and PNAs. Site I had similar contaminants but at lower concentrations with the exception of 1,2,4-trichlorobenzene (8,225ppm) and cyanide (3,183ppm). Access to Site H is completely unrestricted, however waste materials are not present at the surface as they are at Site G. Access at Site I is restricted by a chain-link fence and a 24 hour guard at both entrances to the business which owns the site.

Site L

This site is the location of a former surface impoundment used by a local hazardous waste hauling firm. It is approximately 70 feet by 150 feet and about 8 feet deep. The site is mostly covered with cinders and access is not restricted. The main contaminants at Site L consist of PCBs (500ppm), 4-chloroaniline (270ppm) and PNAs.

Site M

Site M is a formerly used gravel pit that was excavated sometime in the 1940s. IEPA is not aware of any active waste disposal at this site. However, given Site M's location near Dead Creek and the fact that the bottom elevation of the pit is lower than that of the creek, most of the contamination at this site can be attributed to creek sediment being passively transported from Dead Creek. The principle contaminants at Site M included PCBs (505ppm total) and dichlorobenzenes (66ppm total). The Monsanto Company has performed most of investigatory work at this site. Monsanto determined that the volume of sediment from Dead Creek migrating into Site M is on the order of 3,600 yd^3. Access to this site is restricted by a chain-link fence installed by USEPA in 1982. The probability that persons could come into contact with PCB-contaminated sediments is low considering the contaminated sediment is always under water.

Site N

Another site located next to Dead Creek, Site N was a 10-foot deep excavation owned and operated by a construction company. The site was evidently used for the disposal of construction and demolition debris. Two soil borings have shown PNA contamination, however the main group of chemicals found at other Area 1 sites were not found at Site N. Access at Site N is restricted by a chain-link fence.

Dead Creek Segment A

Located next to Site I, this portion of Dead Creek is owned by Cerro Copper Products, Inc. As the culvert at the south end of Dead Creek Segment A (CS-A) had been blocked, this site behaved as an impoundment. It was used as a surcharge basin for the Village of Sauget sewer system during storm events. Given that most of the users in the system were industries, this site received a large volume of industrial process wastewater. Many of the contaminants found at this site were of the same nature as those found at other Sauget Area 1 Sites. As part of a consent decree with the State of Illinois, Cerro Copper agreed to remove approximately 25,000 yd^3 of contaminated creek sediment from CS-A in 1990 at the cost of over $13.6 million. Work was performed under IEPA oversight and CS-A was backfilled and regraded after the removal was complete. A vapor barrier was placed beneath the final regrade to inhibit volatilized compounds coming from groundwater flowing through Site I.

Dead Creek Segment B

As in the case with the above site, the culvert at the south end of Dead Creek Segment B (CS-B) was sealed, also causing this site to behave as an impoundment. CS-B received the same wastewater flows from the Sauget industries prior to the sealing of the culvert at the south end of CS-A. CS-B also received direct wastewater flows from a rubber recycling operation, the hazardous waste hauling firm that operated at Site L and from overflows from Site L when it was in use. CS-B also receives surface runoff from Site G. The main contaminants found in sediments at this site include PCBs (546ppm total), dichlorobenzenes (237ppm total) and minor amounts of PNAs, naphthalene and chlorobenzenes. Access to this site was restricted by a chain-link fence installed by USEPA. Additional sediment sampling by the Monsanto Company has further verified that creek sediments have been impacted by PCBs. Sampling by IEPA has shown that surface water in CS-B is affected by contaminants from Site G.

Dead Creek Segments C, D, E

These segments of Dead Creek received the same industrial flows from the Sauget industries and sources mentioned above prior to the culverts being blocked at CS-A and CS-B. Because these blocking actions had occurred long ago, many of the contaminants which IEPA suspects should be present have since volatilized. Presently, the main contaminants of concern in these creek segments are PCBs. Very limited sampling has revealed total PCB concentrations of up to 60ppm. These segments of Dead Creek run through residential areas of Cahokia and access to them is completely unrestricted.

Work by IEPA to determine the magnitude and extent of contamination at all of these sites has been ongoing since 1980. Funding for these investigations was provided by state funds at the cost of over $1.3 million. To date, these actions represent the State of Illinois' most costliest efforts to enter any site onto the NPL.

II. Current Status

IEPA is not aware of recent disposal activities at any of the Sauget Area 1 Sites. Currently, the most significant problem associated with these sites is the flooding at Dead Creek and high water table conditions that remain. Prolonged precipitation events within the Mississippi River floodplain have caused the water table at the Sauget Area 1 Sites to rise within three feet of the ground surface, and in many cases above the ground surface. After heavy periods of rainfall, Dead Creek's capacity to absorb stormwater is greatly decreased. As the culvert at the south end of CS-B has been sealed, flooding has occurred on Judith Avenue (south of CS-B) and has backed up to Queeny Avenue (north of CS-B) thereby creating serious community concerns. As surface water rises in the CS-B "impoundment", it comes into contact with surfical contamination at Site G. It is clear that Site G is affecting surface water quality in the creek (e.g., significant levels of phenol, chlorobenzenes, chlorophenols, and chloroaniline). Furthermore, these contaminant levels in surface water have been increasing to the point that they are now above the State of Illinois' water quality standards.

IEPA is intent on placing the Sauget Area 1 Sites on the NPL. Comments on the draft scoring package had been sent to USEPA on December 1, 1993. We anticipate that the scoring package can be finalized shortly so that these sites are eligible for the Spring of 1994 proposed listing update.

III. Proposed Immediate Measures

IEPA has reviewed all available data relative to the Sauget Area 1 Sites. Our recommendations on immediate measures are listed below:

1. Repair or fortify the fences that were installed around Site G, CS-B and Site M to minimize the risk of persons coming into contact with these sites. There is an access point to the southern portion of CS-B that needs to be blocked.

2. Perform additional air sampling at Site G to better characterize airborne contaminants leaving the site. If the sampling indicates potential exposures that could lead to acute health problems, the feasibility of a surface removal/capping action at this site will be evaluated.

3. Fully characterize the extent of contamination in the unfenced portions of Dead Creek (CS-C, CS-D, CS-E). As very limited data suggest, known concentrations of PCBs (60ppm total), while significant, would not be expected to result in acute health problems for children playing in creek sediments. IEPA recommends that fencing be constructed around creek segments showing PCB concentrations that could cause acute health problems if full-scale remedial activities (e.g., removal actions) are not expected to be completed within the next few years.

4. Eliminate the flooding at CS-B. IEPA proposes that this segment of Dead Creek be pumped out so that the water level in CS-B does not rise to the extent that it comes into contact with Site G. Recent field observations have indicated that waters within CS-B have been impacted by Site G and that these waters are migrating outside of fenced areas into neighborhoods. IEPA's interpretation of the surface water sample results suggest that while there are no acute health effects associated with a possible brief dermal exposure to surface water flooding from CS-B, there will likely be ecological effects as the contaminant levels are above state water quality standards. IEPA proposes (since contaminant levels are above water quality standards) that the water be pumped to the nearby wastewater treatment plant for treatment. As these flooding problems are likely to prevail through 1994, this pumping action could possibly be a long-term project.

5. IEPA has already identified approximately 30 potential PRPs at the Sauget Area 1 Sites in a past enforcement action. The goal of this action was to solicit a settlement for local industries to perform a Sauget Area 1 RI/FS without having to resort to naming the site to the NPL. Viable parties are among these potential PRPs. A thorough PRP search must be performed and additional information needs to be obtained from further Section 104(e) Information Requests to these and other potential PRPs. In addition to this PRP information, IEPA also has limited information on waste disposal activities at these sites from interviews of longtime residents.

IV. Recommended Measures

IEPA recommends that a very strong enforcement approach be employed at the start of the project. We would anticipate that Section 104(e) Information Requests be sent (at minimum) to potential PRPs that IEPA had identified in the earlier state enforcement action. It is further recommended that the questions in the Request be more specifically worded than the questions that are in USEPA's model 104(e) Request. IEPA anticipates that the first round of 104(e) Requests could be mailed out by mid-February, 1994.

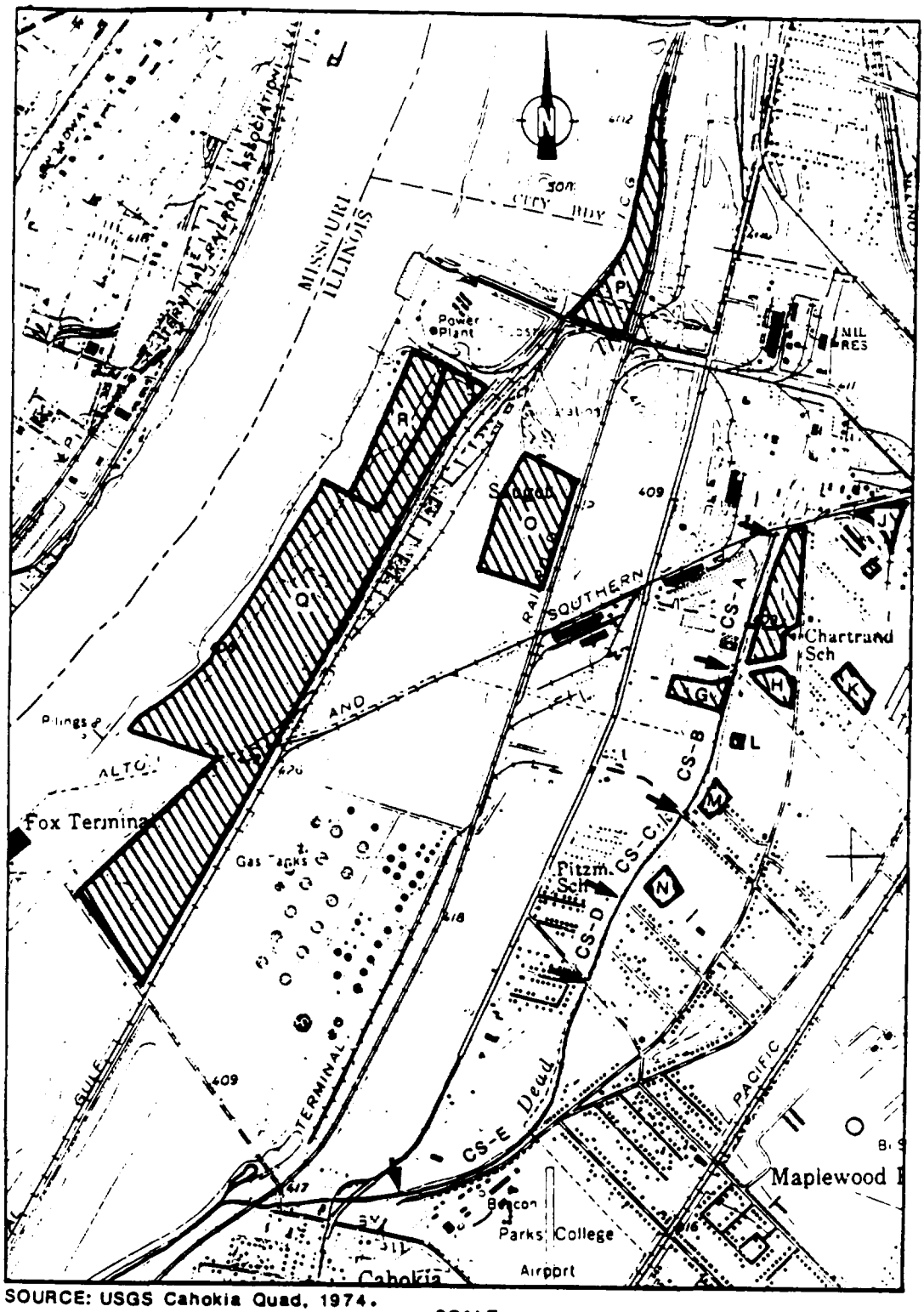
While these and further rounds of Requests are being evaluated by the potential PRPs, a very thorough PRP search must be conducted. Information obtained in the PRP search and 104(e) Request responses will be used to build an enforcement case against identified PRPs. Given that these activities may take as long as six months, we anticipate that negotiations with the PRPs could begin by August 15, 1994. A sixty day negotiation period with the PRPs would then take place after which a settlement will or will not be reached.

If a settlement with the PRPs cannot be reached by October 15, 1994, IEPA recommends that an RI be performed to supplement IEPA's existing site database. More specifically, the fieldwork in this

RI would entail performing confirmatory borings at each of the sites to complete a source area characterization, the investigatory work mentioned in III.2 and III.3, a groundwater study, a risk assessment and an ecological assessment. IEPA anticipates that the RI report could be completed by the end of 1995 at the cost of $1.5 to $2 million.

Because of extensive historical involvement IEPA believes that, at minimum, the RI should be performed as a state-lead action. In addition to having obtained most of the existing data at all Sauget Area 1 Sites, IEPA has developed extensive community relations contacts in Cahokia and has had reasonably good relations with many of the Sauget industries.

With respect to IEPA's earlier attempts to reach a settlement with the local PRPs for an RI/FS, it was very much apparent that documentation concerning disposal activities was lacking. Given this lack of documentation, the time period during which these activities existed, and the extreme unwillingness for these potential PRPs to cooperate, it is likely that the RI (and FS) will be performed as fund-lead actions. IEPA would be willing to accept the lead role in enforcement for the Sauget Area 1 Sites in order to reach a settlement with the PRPs.



SOURCE: USGS Cahokia Quad, 1974.

SCALE

0 0.5 1 MILE

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IEPA

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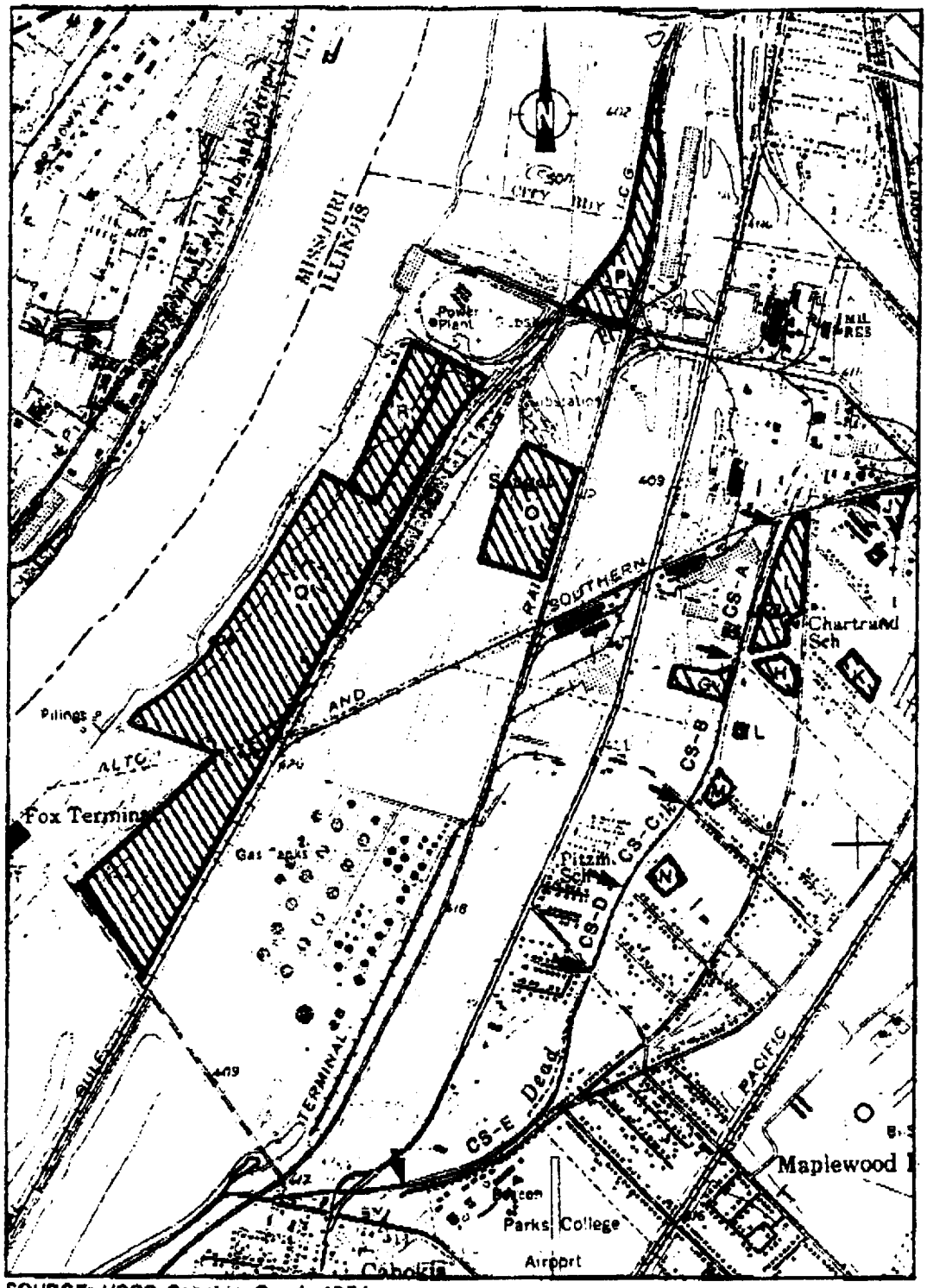

SOURCE: USGS Cahokia Quad, 1974.

SCALE
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A-2

ATSDR Record of Activity

UID #: R L W 0 Date: 01 /14 /94 Time: 8:45 am X pm__

Site Name: Sauget Area 1 City: Sauget Cnty: St, Clair
State: IL

CERCLIS #: L1630200005 Cost Recovery #: — Region: 5

Site Status (1) _ NPL X Non-NPL _ RCRA _ Non-Site specific _ Federal
(2) _ Emergency Respons X Remedial _ Other

Activities

_ Incoming Call _ Public Meeting* _ Health Consult* _ Site Visit*
_ Outgoing Call _ Other Meeting _ Health Referral _ Info Provided
_ Conference Call X Data Review X Written Response _ Training
_ Incoming Mail _ Other

Requestor and Affiliation: (1) Sam Borries
Phone: (312) 353-2886 Address: 77 W. Jackson Blvd.
City: Chicago State: IL Zip Code: 60604

Contacts and Affiliation

(1) Sam Borries ( )
( ) ( )

1-EPA	2-USCG	3-OTHER FED	4-STATE ENV	5-STATE HLT
6-COUNTY HLTH	7-CITY HLTH	8-HOSPITAL	9-LAW ENFORCE	10-FIRE DEPT
11-POISON CTR	12-PRIV CITZ	13-OTHER	14-UNKNOWN	15-DOD
16-DOE	17-NOAA	18-OTHR STATE	19-OTHR COUNTY	20-OTHR CITY
21-INTL	22-CITZ GROUP	23-ELECT. OFF	24-PRIV. CO	25-NEWS MEDIA
26-ARMY	27-NAVY	28-AIR FORCE	29-DEF LOG AGCY	30-NRC
31-ATSDR				

Program Areas

_ Health Assessment _ Health Studies _ Tox Info-profile _ Worker Hlth
_ Petition Assessment _ Health Surveilnc _ Tox Info-Nonprofil _ Admin
_ Emergency Response _ Disease Regstry _ Subst-Spec Resch _ Other
_ Health Consultation _ Exposr Regstry _ Health Education

Narrative Summary: The U.S. Environmental Protection Agency (EPA) Region 5 requested that the Agency for Toxic Substances and Disease Registry (ATSDR) review results of surface water and sediment samples taken from segment CS-B of Dead Creek, and provide a public health opinion. Specifically, they would like to know if the contaminated surface water and sediment pose an imminent threat to human health that warrants a removal action.

Dead Creek is located in the town of Sauget in St. Clair County, Illinois. The creek supplies drainage for part of the Mississippi River flood plain. According to the EPA there is a six foot chain link barbwire fence restricting access to this area (Segment CS-B), and signs are posted along the fence to warn the public of surface water and sediment contamination. Also, the EPA has indicated that there is a hole under the fence at the southern portion of the site along Judith Lane. The closest residence is about 200 feet southeast of segment CS-B of Dead Creek. A study conducted in 1988 indicated the presence

Enclosures: Yes ( ) No (X); MIS entered: Yes ( ) No (X)

of maximum levels of sediment contaminants as follows: Aroclor 1248 at 480,000 parts per million (ppm), Aroclor 1254 at 141,000 ppm, Aroclor 1260 at 60,000 ppm, lead at 1,300 ppm and nickel at 1,500 ppm. Analysis of surface water samples collected in 1993 revealed low levels of semi-volatile organics, for example, Di -n- butylphthalate at 6 parts per billion (ppb), dimethylphenol at 5 ppb, and methylphenol at 35 ppb. During November 1993, the creek flooded and stormwater run-off samples were taken. Evaluation of stormwater run-off sampling results indicate that contaminants are not at levels of public health concern.

Action Required/Recommendations/Info Provided: The data evaluated indicate that Dead Creek (area CS-B) sediment contains elevated levels of polychlorinated biphenyls (aroclors), lead, nickel and other semi-volatile organics. Surface water and stormwater run-off contained low levels of contamination with semi-volatile organics.

Long-term exposure to polychlorinated biphenyls and lead in sediment from area CS-B of Dead Creek could pose a public health hazard. However, such exposures are unlikely to occur since access to the site is restricted by a chain link barbwire fence and warning signs have been posted. Therefore, the site does not pose an imminent threat to human health, and does not warrant an immediate removal action. Nevertheless, appropriate remedial actions should be implemented to mitigate health risks that could result from long-term exposure to the contamination. Also, ensure that the fence holes along the southern portion of the site on Judith Lane are repaired.

Signature: Robert E. Williams, Ph.D. Date: 1-14-94

cc: Louise Fabinski
RIMB
Illinois Department of Public Health

Enclosures: Yes ( ) No (X); MIS entered: Yes ( ) No (X)

I.1
3/28/95

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

OVERNIGHT MAIL

MAR 28 1995

REPLY TO THE ATTENTION OF:

CM-29A

Paul T. Sauget, Mayor
Village of Sauget
Village Hall
2897 Falling Springs Road
Sauget, IL 62206

Re: Access to Property Known as Sauget Area 1, Site G, Sauget, Illinois

Dear Mr. Sauget:

Enclosed please find a Consent Agreement for Access to the property known as Sauget Area 1, Site G, in Sauget, Illinois. The U.S. Environmental Protection Agency ("U.S. EPA") plans to conduct or compel hazardous waste removal activities at the site because the Agency has determined that the site contains contaminated soils containing high levels of PCB Arochlor 1260 and other hazardous substances. These soils constitute, among other things, an actual or potential threat of exposure of hazardous substances or pollutants or contaminants to human health and the environment. For this reason, U.S. EPA needs access to your property (specifically, in the Village's case, the property in between Queeny Avenue and the Site G fence) in order to remedy the contamination, as described herein.

Section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. Section 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (1986) ("CERCLA", as amended), gives U.S. EPA and its representatives the authority to enter any property for the purpose of taking response actions to address the release or threatened release of hazardous substances, pollutants, or contaminants. Although U.S. EPA personnel or the personnel of its authorized representative may enter property without an owner's consent when entry is necessary to respond to a release or threatened release, it is U.S. EPA's practice to seek the owner's consent before entry onto the property. In this case, U.S. EPA and/or its authorized representative, will conduct removal activities as described in the attached "CONSENT FOR ACCESS TO PROPERTY" form. These activities will occur and will be completed within the next 6-8 months, assuming they can be initiated quickly.

Therefore, I have enclosed a "CONSENT FOR ACCESS TO PROPERTY" form so that you may give U.S. EPA and its authorized representative your written consent for access to your property.

ACCESS LETTERS ALSO SENT TO THE FOLLOWING:

On March 2, 1995:

Queeny Poperties, Inc.
Jay S. Dinkleman, Registered Agent
8021 Ruck Drive
Belleville, Illinois 62223

Mr. Harold W. Wiese
c/o Walter L. Wittenberg
Greensfield, Hemker & Gale, P.C.
1800 Equitable Building
10 South Broadway
St. Louis, MO 63102-1774

Emily Hankins
3110 Mississippi Avenue
Sauget, Illinois 62201

Moto, Inc.
Main Office
721 West Main
Belleview, Illinois 62222

Cerro Copper Products Company
c/o Richard F. Ricci
Lowenstein, Sandler, Kohl, Fisher & Boylan
65 Livingston Avenue
Roseland, NJ 07068-1791
201/992-8700

On March 28, 1995:

Mr. Andrew Hankins
3108 Mississippi Avenue
Sauget, IL 62201

Paul T. Sauget, Mayor
Village of Sauget
Village Hall
2897 Falling Springs Road
Sauget, IL 62206

CONSENT FOR ACCESS TO PROPERTY

Name: Village of Sauget
2897 Falling Springs Road
Sauget, IL 62206

Address of Property: Sauget Area 1, Site G
Sauget, Illinois

I consent to officers, employees, contractors, and authorized representatives of the United States Environmental Protection Agency ("U.S. EPA") entering and having continued access to this property for the following purposes:

a. Develop a Health and Safety Plan to prevent exposure to workers and local residents from contaminated material;

b. Develop and implement a sampling and analytical program designed to identify potentially contaminated material inside and outside of the Site G Landfill fenced area;

c. Provide dust suppression measures for excavated contaminated material to insure contaminated dust does not migrate;

d. Properly handle, consolidate, store, remove, and/or treat and dispose of contaminated liquids, soil, and sediment which has migrated off-site and/or still exists on Site G, including any contamination which may have migrated into the adjacent portion of Creek Segment B;

e. Consolidate and/or remove non-hazardous waste and/or brush and debris;

f. Properly close/abandon any monitoring wells that interfere with placement of a landfill cover;

g. Provide appropriate backfill material as necessary to excavated areas and solidify/stabilize liquids, sludge and sediment as necessary to support overlying cover materials;

h. Design and Engineer an appropriate protective cover for the Landfill contents and the consolidated materials placed in the fenced area of Site G complying with identified State and Federal ARARs; and

i. Implement necessary erosion control measures to prevent cover erosion.

I realize that U.S. EPA's actions are undertaken pursuant to its response and enforcement responsibilities under the Comprehensive

MAR 30 1994

R-19J

The Honorable Jerry Costello
Member, United States House
of Representatives
327 W. Main Street
Belleville, Illinois 62220

Dear Mr. Costello:

Thank you for your letter of March 1, 1994, regarding updated information on the National Priorities List (NPL) evaluation of the Dead Creek area in Sauget and Cahokia, Illinois.

In general, a site is proposed for the NPL by preparation of a Hazard Ranking System (HRS) scoring package. If the site score exceeds 28.5, it is submitted to the United States Environmental Protection Agency (U.S. EPA) Headquarters for Quality Assurance/Quality Control (QA/QC). The QA/QC revisions are forwarded to the Region who then prepares the final draft package. This final draft is then forwarded by U.S. EPA Headquarters to the Office of Management and Budget (OMB) who reviews all potential NPL candidate sites. If the site passes OMB review, the site is then proposed draft to the NPL by publication in the Federal Register. A sixty day comment period then follows and the EPA must respond to all comments that are received before that site can be proposed final on the NPL. The final proposal is also published in the Federal Register.

Currently, we are evaluating this area, known as Sauget Area 1 under the site assessment program, as a candidate for the National Priorities List. Since we are in the early stages of this process, we cannot discuss the specifics of this particular HRS package since it is considered predecisional. In addition to the HRS review, the U.S. EPA has also begun the evaluation of Potentially Responsible Parties (PRPs) to determine the likelihood of an enforcement action at this site.

I have enclosed a copy of a briefing memorandum that was prepared for our Agency by the Illinois Environmental Protection Agency (IEPA). As you know, the IEPA is actively involved in evaluating the Sauget Area and has provided most of the site assessment information, to date. Their fact sheet gives a brief description of the various sites which constitute Sauget Area 1. Since receipt of your previous letter sent by IEPA on December 9, 1993, the IEPA in response to a citizen complaint sampled at Site M on

March 11, 1994. Initial review of the sample results reveal similar compounds as indicated before. The Illinois Dept. of Health (IDPH), in conjunction with the IEPA, are reviewing the results and will provide their final determination to the City of Cahokia.

If you have any additional questions, please contact me. Thank you for your interest in this matter.

Sincerely yours,

/s/ original signed by
William Sanders III

Valdas V. Adamkus
Regional Administrator

Enclosure

bcc: ORA w/control slip
M. Canavan, ORA
AL w/control slip
K. Westlake, ORA
P. Takacs, IEPA
J. Gore, RRB
S. Borries, ERB
T. Martin, ORC
S. Pastor, OPA
R. Webb, OSF, w/control slip
M. Johnson, ERB, w/control slip
N. Maier, WMD, w/control slip

JERRY F. COSTELLO
12TH DISTRICT, ILLINOIS

PLEASE RESPOND TO THE OFFICE CHECKED BELOW:

COMMITTEES:
BUDGET
PUBLIC WORKS AND TRANSPORTATION
SCIENCE, SPACE, AND TECHNOLOGY
(ON LEAVE)
SELECT COMMITTEE ON AGING

Congress of the United States

House of Representatives

Washington, DC 20515-1312

March 1, 1994

Mr. Alan Altur
Site Assessment Manager
EPA, Site Assessment Section
Office of Superfund
77 W Jackson
Chicago, IL 60604

Dear Mr. Altur:

I am writing in regard to Dead Creek in Cahokia, Illinois and I am interested in obtaining updated information as to the EPA's progress with this matter.

Recently, I held a town hall meeting in Cahokia and was confronted by several concerned residents. I am considering holding a special meeting in the area and inviting all concerned parties in an effort to bring them up-to-date on this issue.

Enclosed you will find a copy of the letter I received on December 9, 1993 from Mr. Tom Walters, Legislative Liaison with the Illinois EPA. As I understand, the process of becoming included in the National Priorities List is lengthy. Any further information you could provide me would be appreciated.

If you have any questions please feel free to contact my office manager Anne Risavy at 618/233-8026. Please forward any correspondence to my office address marked below.

Mr. Altur, thank you for your attention to this matter and I look forward to hearing from you.

Sincerely,

JERRY F. COSTELLO
Member of Congress

JFC/amr

Enclosure

☐ 119 CANNON BUILDING
WASHINGTON, DC 20515
TEL: (202) 225-5661
FAX: (202) 225-0285

☒ 327 W. MAIN ST.
BELLEVILLE, IL 62220
TEL: (618) 233-8026
FAX: (618) 233-8765

☐ 1363 NIEDRINGHAUS AVE.
GRANITE CITY, IL 62040
TEL: (618) 451-7065
FAX: (618) 451-2126

☐ 250 W. CHERRY ST.
CARBONDALE, IL 62901
TEL: (618) 529-3791
FAX: (618) 549-3768

☐ 8787 STATE ST.
EAST ST. LOUIS, IL 62203
TEL: (618) 397-8833

☐ 1330 SWANWICK ST.
CHESTER, IL 62233
TEL: (618) 826-3043

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

(217) 782-3397

December 9, 1993

The Honorable Jerry Costello
United States Congressman
1363 Niedringhaus Avenue
Granite City, Illinois 62040

Dear Congressman Costello:

Thank you for you letter of November 23, 1993 in which you requested information regarding Dead Creek in Cahokia, Illinois. The following information is to address the questions and concerns of your constituents, Richard and Diane McDonnell.

Studies have found "30 different chemicals" in Dead Creek:

Environmental studies have found contamination in Dead Creek, but the most significant problem from a human health standpoint is the **PCB-contaminated sediment** at the bottom of the creek bed. PCBs (Polychlorinated Biphenyls) do not move readily in groundwater, since they tend to bind tightly to soil particles. There might be an increased hazard if the sediment were to be transported downstream (through pumping from the creek-bottom, or opening the culvert at the creek-bottom under Judith Lane, for example). However, in the present situation, the greatest public health threat would occur if the creek were to **dry up completely**, allowing PCB-contaminated sediments in the creek bed to be carried by the wind or by animals into nearby residential yards. Such a development appears to be **far in the future**, at this point.

IEPA has submitted the Superfund "scoring package" for Sauget Sites Area I to U.S. EPA's Region V office, where it is under final review. This document is the basis for proposing the area containing Dead Creek for inclusion in the National Priorities List (NPL). The final package is expected to go to U.S. EPA headquarters **this month** and the federal agency could formally propose Area I for the NPL as soon as the **spring of 1994**.

Eight-foot-high fence around part of Dead Creek:

True. In the 1980's U.S. EPA constructed a fence around Dead Creek Segment 5 (north of Judith Lane, to Queeny Ave., in Sauget), and around several other Sauget Sites (Site 6, Site

[redacted] in order to limit public access and prevent exposure of the public to the chemical contamination known to be present at those sites. In some cases the danger was not only direct contact, but also the possibility of consuming contaminated fish from these waters. Another purpose of constructing the fence was to prevent any continued dumping of wastes at the sites.

EPA "blocked the creek" at Judith Lane"

IEPA has no formal record of how the culvert under Judith Lane came to be blocked. We believe that the culvert was probably blocked in the late 1960s or early 1970s in order to halt the further southward migration of contaminants that were known to be moving into the two northern segments of the creek from adjacent hazardous waste sites. It is not presently clear what governmental unit or private party actually ordered or carried out the blocking action, but the finding in more recent years of PCB contamination in sediments above Judith Lane (as well as those south of Judith) makes this action seem prudent today. The fact that the PCBs tend to stay with the sediment particles, however, suggests a remedy for the concerns expressed by area residents. If water could be pumped out of Segment B to the nearby American Bottoms wastewater treatment plant, without disturbing the PCB-contaminated sediments, the water level could be reduced.

Concerns about possible health hazards from odors in creek:

Responding to concerns expressed over the summer by area residents, IEPA sampled the creek water both above Judith Lane (9/24/93, 9/28/93, & 10/15/93) and below Judith (10/15/93) to make sure the water did not pose a significant public health threat. IEPA's Office of Chemical Safety (OCS) concluded that the contaminants present in the water would not pose a public health risk, but noted that certain chemicals (notably phenolics) that were characteristic of Site G (west of Dead Creek south of Queeny Ave.) were found above the very low odor threshold for these chemicals. Residents would smell these chemical odors at levels far too low to be harmful.

The Office of Chemical Safety also noted that the levels of iron, lead, and phenolic compounds in the water exceeded State water quality standards and would be potentially damaging to fish and other aquatic species.

IEPA says not to drain the creek:

IEPA has long warned against disturbing the contaminated sediments in the creek, and the State has not had the funding

that would have been needed to pay for pumping water from above Judith Lane into the American Bottoms treatment works. The IEPA has been open to that solution from the start of this unusual flooding event, but no party came forward with a workable way to get the water from the creek to the treatment works: no sewers existed nearby in Cahokia with the needed capacity.

However, as noted previously, based on both old and recent sampling, IEPA held the view that water could safely (from a human health standpoint) be pumped from this creek segment as long as the sediments were not disturbed. This could be accomplished by keeping the pump intake a sufficient height above the creek bed. Thus, the creek segment could not safely be pumped dry (not a desirable state anyway, since that would expose contaminated sediments), but it could be pumped down, considerably, to alleviate the flooding problem. Again, because tests of the water in Dead Creek north of Judith Lane have exceeded State water standards and could harm the environment, the IEPA has recommended the option of pumping the water to a treatment facility.

On November 16, 1993, after a particularly heavy series of storms, Mayor King, of Cahokia contacted IEPA to inform the Agency that Cahokia was starting to pump water from above Judith Lane to the next segment of Dead Creek. The mayor was informed that Cahokia was undertaking some risk of being drawn in as a Potentially Responsible Party if it were to be claimed in the future that this action had spread contamination from the area north of Judith Lane. IEPA also emphasized that recent tests of the surface water had shown levels of contamination that would violate state standards as might harm aquatic species if the water were not treated before being released to the environment. Cahokia officials were advised strongly to avoid placing the intake so as to disturb the contaminated sediments, however.

Earlier discussions with the mayor led to a phone conference with IEPA that concluded that no treatment process would be required for the emergency pumping to alleviate the flooding, based on IEPA's recent sampling results and the dilution with other runoff water prior to the water reaching the Mississippi River (see attached letter from Mayor King). The pumping continued for several days, was halted for several more, and was resumed when groundwater recharge apparently refilled the creek.

While the pumping continues, IEPA has periodically sampled the creek water. IEPA took a sample of the water being pumped from north of Judith Lane on 11/19/93 and found increased levels of phenolic compounds. Again, these levels do not indicate any human health risk, but they show an

increased threat to aquatic organisms.

Perceived hazard to residents from water seepage into basements:

In response to concerns expressed by the McDonnell's, IEPA sampled the seepage water in their basement in June, 1993, and followed up on September 28 by re sampling that basement, and five others near the creek that had seepage problems. Stan Black, of IEPA's Office of Community Relations, notified all the residents by phone on October 12 that the sample results had been quite normal for basement seepage water, posing no health risk to residents. IEPA sent residents copies of the lab results for their records on November 9 & 10, and the Illinois Department of Public Health (IDPH) sent letters to the residents explaining the results in health terms on November 24.

Property value concerns; Need to inform potential buyers:

Stan Black, of IEPA's Office of Community Relations, had indeed mentioned to Diane McDonnell in the course of a phone conversation that several realtors and/or appraisers from her area had called him to obtain information on contamination in the Dead Creek area. They had specifically mentioned that they had a professional "duty to inform" potential buyers in the area about possibly adverse factors that could affect property values. Part of the motivation for IEPA's effort to add Area I to the NPL is the desire to remedy the environmental problems in the area so that local residents will not need to be concerned about their effects on property values.

This response to your inquiry has been delayed by the fluidity of the Dead Creek situation. Indeed, matters have not yet reached a settled state, by any means. We are sending your office this response in order to be as complete as possible at this time, but we will also provide further updates as additional developments occur.

If I can be of further assistance, please do not hesitate to call.

Sincerely,

Thomas P. Walters

Thomas P. Walters
Legislative Liaison

MGkml048

Enclosure

EPA REGION 5 OFFICE ROUTING & TRANSMITTAL SLIP

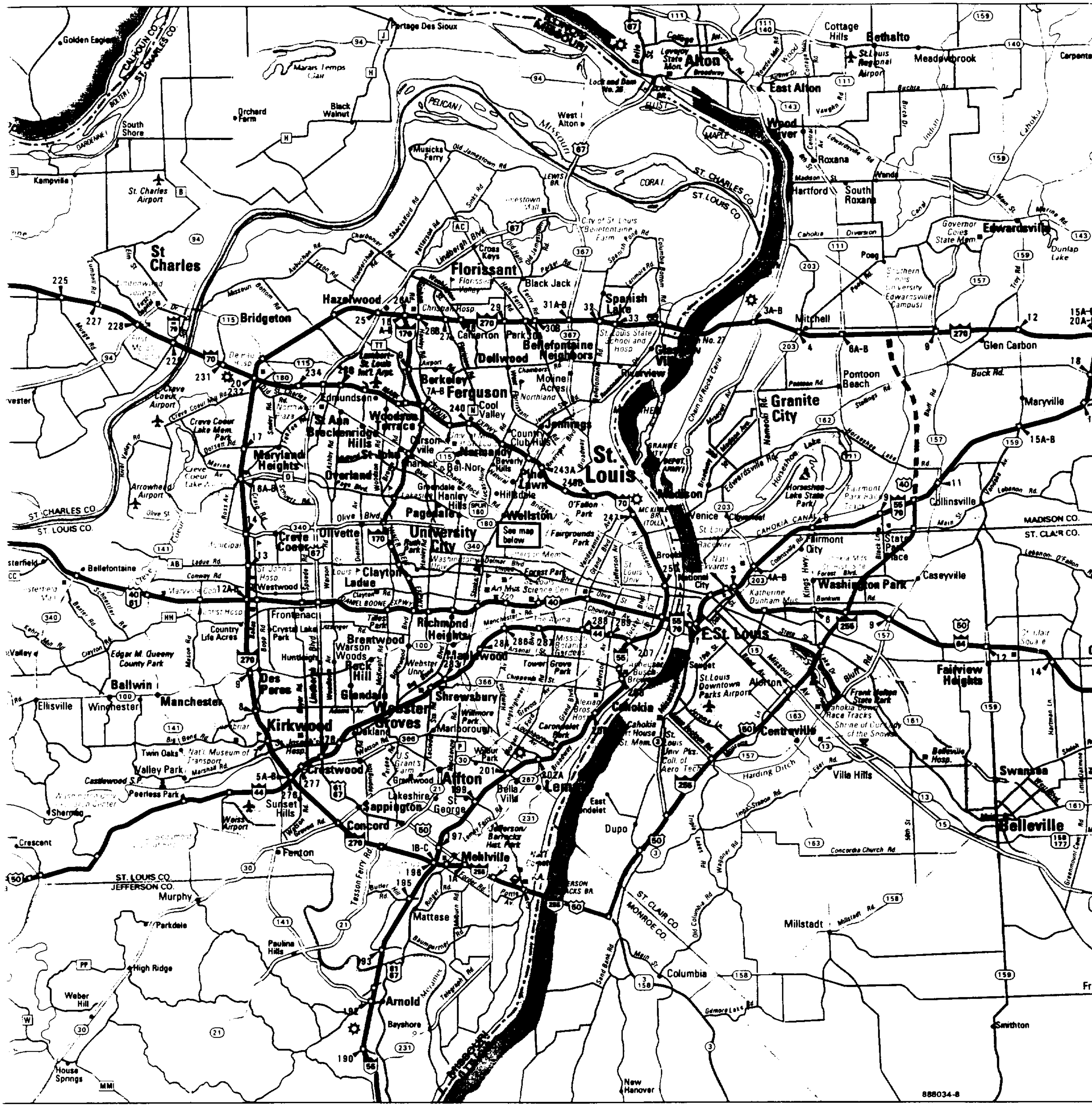
Mail Code	ACTIVITY	Mail Code	ACTIVITY
R-19J	REGIONAL ADMINISTRATOR	MI-13J	Information Management
A-18J	AIR AND RADIATION DIRECTOR	MISR-12J	Records Management
AE-17J	Air Enforcement	MB-19J	Planning and Budget
AT-18J	Air Toxics and Radiation	P-19J	PUBLIC AFFAIRS
AR-18J	Regulation Development	PG-12J	Graphic Arts
N-4D	CRIMINAL INVESTIGATIONS	PL-12J	Library
C-3T	REGIONAL COUNSEL	H-7J	WASTE MANAGEMENT DIRECTOR
CA-3T	Air/Water/Toxics and General Law	HR-8J	RCRA Director
CS-3T	Solid Waste and Emergency Response	HRE-8J	Enforcement
S-14J	ENVIRONMENTAL SCIENCES DIRECTOR	HRP-8J	Permitting
SL-10C	Central Regional Laboratory	HRM-7J	Program Management
SC-9C	Central District Office	HRU-8J	Underground Storage Tanks
SE-W	Eastern District Office	HS-6J	Superfund Director
SG-14J	Geographic Information Systems	HSC-9J	Chemical & Emergency Preparedness
SQ-14J	Monitoring and Quality Assurance	HSE-5J	Emergency Response
SP-14J	Pesticides and Toxic Substances	HSE1-G	Response Section 1 (Grosse Ile)
G-9J	GREAT LAKES PROGRAM	HSM-5J	Program Management
IA-13J	INSPECTOR GENERAL - Audit	HSRL-6J	IL/IN Remedial Response
II-13J	INSPECTOR GENERAL - Investigations	HSRLT-5J	Technical Support
M-19J	PLANNING AND MANAGEMENT DIRECTOR	HSRM-6J	MN/OH Remedial Response
MC-10J	Contracts and Grants	HSRW-6J	WI/MI Remedial Response
ME-19J	Environmental Review	W-15J	WATER DIRECTOR
MF-10J	Financial Management	WC-15J	Compliance
MS-13J	Facilities Management & Services	WG-16J	Ground Water Protection
MSS-16J	Supply Room	WD-17J	Safe Drinking Water
MP-4J	Human Resources	WQ-16J	Water Quality
MPT-12J	Training		
MPS-12J	Safety		

ATTENTION: D Dore

REMARKS *(Use reverse if more space is needed)*

RRD
6Th Floor
77 W Jackson Blvd

FROM	DATE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Bridgeton
Hazelwood
Florissant
Black Jack
Spanish Lake
Ferguson
Berkeley
Dellwood
Bellefontaine Neighbors
Maryland Heights
St. Ann
Overland
Creve Coeur
Olivette
University City
Clayton
Ladue
Pagedale
Wellston
Normandy
Pine Lawn
St. Louis
Richmond Heights
Brentwood
Maplewood
Shrewsbury
Webster Groves
Kirkwood
Des Peres
Ballwin
Manchester
Ellisville
Winchester
Crestwood
Sunset Hills
Affton
Lemay
Concord
Mehlville
Arnold
Fenton
Murphy
High Ridge
Mattese
Alton
East Alton
Wood River
Roxana
Hartford
South Roxana
Edwardsville
Bethalto
Granite City
Madison
Venice
Fairmont City
Washington Park
Caseyville
Collinsville
Maryville
Glen Carbon
Mitchell
Pontoon Beach
East St. Louis
Cahokia
Centreville
Alorton
Fairview Heights
Swansea
Belleville
Millstadt
Columbia
Dupo
Smithton
Mississippi
Missouri
ST. LOUIS CO.
JEFFERSON CO.
ST. CHARLES CO.
MADISON CO.
ST. CLAIR CO.
MONROE CO.
See map below
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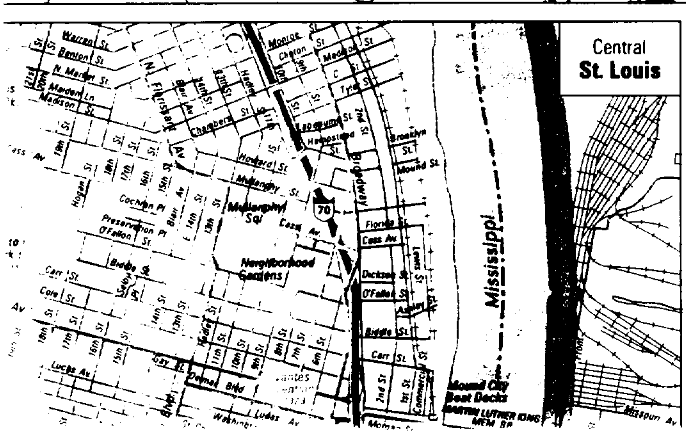
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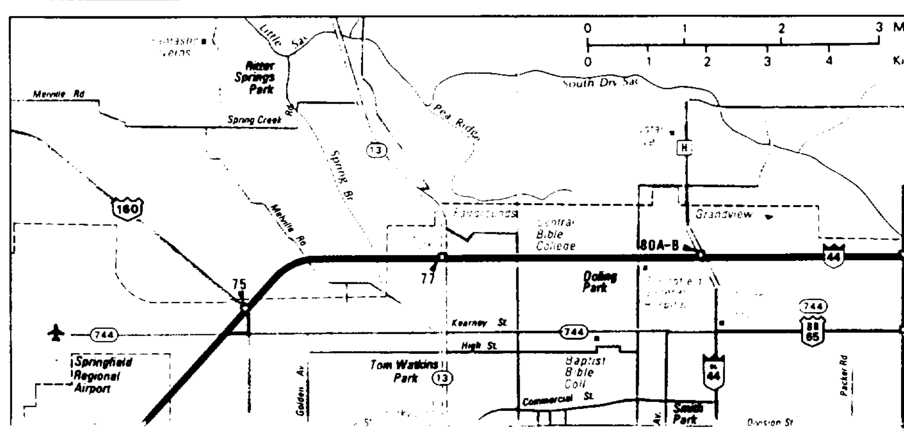
St. Louis
Mississippi
Neighborhood Gardens
Mound City Boat Docks

Springfield Regional Airport
Tom Watkins Park
Dolling Park
Central Bible College
Baptist Bible Coll
Ritter Springs Park
Grandview
Kearney St
Packer Rd
South Dry Sac
Spring Creek
Little Sac

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

Date: May 31, 1994

Subject: Sauget Area One Landfill Fire

To: Don Bruce, Chief
Emergency Response Branch, Section II

From: Sam Borries, OSC

On May 27, 1994 a site assessment was conducted at the Sauget Area One, Site G, Sauget Illinois by U.S. EPA, TAT, and State Personnel. The site assessment was initiated after a fire engulfed most of the 5 acre landfill in late March or early April of 1994. Local responders extinguished the fire by pumping water onto the landfill for several days. Standing water on the landfill covered approximately 1/5th of the site at the time of the site assessment. Small smoke plumes were noted coming from approximately six vents in the ground surface among uncovered scorched drums. Elevated HNu readings of 70 units were recorded from the venting smoke plume. All smoke plumes dissipated prior to reaching fenced boundaries however a noticeable pesticide like odor was still present approximately 1/2 mile downwind of the site.

Future plans include returning to the site immediately to conduct air sampling and air monitoring in efforts to determine if any immediate risks are present.

cc: Jeff Gore, RPM
Alan Altur, SAM

MONSANTO CHEMICAL COMPANY
REQUESTS

1.Identify all persons consulted in the preparation of the answers to these Information Requests.

2.Identify all documents consulted, examined, or referred to in the preparation of the answers to these Requests, and provide copies of all such documents, clearly indicating on each document the questions to which it is responsive.

3.If you have reason to believe that there may be persons able to provide a more detailed or complete response to any Information Requests or who may be able to provide additional responsive documents, identify such persons and where they may be contacted.

4.List the EPA Identification Numbers of the Respondent.

5.Identify all persons having knowledge or information about the generation, transportation, treatment, disposal or other handling of material at the Site, particularly those who worked at the Krummrich or Queeny plants ("the plants") in the period prior to 1967.

6.Identify the acts or omissions of any person, including your employees, contractors, or agents, that caused or may have caused the release or threat of release of hazardous substances, pollutants, or contaminants as well as any damages resulting therefrom.

7.Identify all persons, including yourself, who arranged or may have arranged for disposal or treatment, or arranged for transportation for disposal or treatment of hazardous materials, at or to the Site, with particular attention to persons who performed these duties in the period prior to 1967. In addition, identify the following:

a. The persons with whom you or such other person(s) made such arrangements;

b. Each date on which such arrangements took place;

c. For each transaction, the nature or the hazardous material, including the chemical content, characteristics, physical state (e.g., solid, liquid), and the process for which the material was used or the process which generated the material;

d. The owner of the hazardous materials so accepted or transported;

e. The quantity of the hazardous materials involved (weight or volume) in each transaction and the total quantity for

all transactions;

f. All tests, analyses, and analytical results concerning the hazardous materials;

g. The persons(s) who selected the Site as the place to which the hazardous materials were to be transported;

h. The amount paid in connection with each transaction, the method of payment, and the identity of the person from whom payment was received;

i. Where the person identified in g., above, intended to have such hazardous materials transported and all evidence of this intent;

j. Whether the hazardous materials involved in each transaction were transshipped through, or were stored or held at, any intermediate site prior to final treatment or disposal;

k. What was actually done to the hazardous materials once they were brought to the Site;

l. The final disposition of each of the hazardous materials involved in such transactions;

m. The measures taken by you to determine the actual methods, means, and site of treatment or disposal of the hazardous materials involved in each transaction.

n. The type and number of containers in which the hazardous materials were contained when they were accepted for transport, and subsequently until they were deposited at the Site, and all markings on such containers;

o. The price paid for (i) transport (ii) disposal or (iii) both of each hazardous material.

p. Copies of all documents containing information responsive to a - o above.

q. All persons with knowledge, information, or documents responsive to a - p above.

8.Provide a detailed listing of products, including by-products, manufactured at both "the plants" for the time period 1900 - 1982. Include a listing of products and by-products manufactured at a former unit of the Monsanto Krummrich plant (e.g. the "U.S Chemical Warfare Service Plant") now occupied by Ethyl Petroleum Additives, Inc. and any and all documents or information, whether sealed or not concerning the U.S. Chemical Warfares Service Plants waste disposal policies and/or practices.

9.Describe the manufacturing processes for each major group of

chemicals produced at the plants from 1900 - 1982.

10.Identify the raw chemical products received (e.g. benzene, chlorine, acids, etc.) at each of the plants and the additives and catalysts used to produce finished products.

11.The Krummrich plant evidently began operations at its present location in the early 1900's. Provide all information relating to the processes used at the Commercial Acid Works or the Indiahoma Oil Refinery. Identify all documents concerning the wastes generated at these facilities prior to Monsanto's use of the property.

12.List the specific types of organic and inorganic chemical wastes used or generated at the plants.

13.Provide the weight and/or volume of the total quantity of waste materials or hazardous substances generated at these plants. For each waste material or hazardous substance:

a. Describe the nature of the waste material or hazardous substance, including the chemical content, characteristics, physical state (e.g., solid, liquid), and;

b. The process for which the material or substance was used or the process which generated the substance.

14.Were off-specification products treated as wastes at the plants? Provide information and documents concerning Monsanto's treatment and disposal practice or policy concerning off-specification products.

15.It has been estimated that 70% of Monsanto's hazardous waste is sold as by-products to other firms. Describe Monsanto's practice of selling by-products to other companies or transferring by-products to other Monsanto facilities. List the other companies or other Monsanto facilities to which Krummrich by-products have been sold or transferred and list the types of by-products sold or transferred. Identify any by-products the Krummrich plant receives from other Monsanto facilities. Describe what these by-products are and their uses.

16.As the Krummrich and Queeny plants evolved over the years, how has the disposal of obsolete process equipment been handled? Describe the disposition of such equipment.

17.Describe the methods used to handle contaminated soil, contaminated clothing/protective gear, and laboratory wastes at the plants. Were these materials commingled with undefined hazardous or non-hazardous materials before disposal?

18.Were all waste materials generated or used at the plants disposed of on plant property? Were disposal activities carried out by Monsanto employees or outside personnel or waste

contractors? For all disposal activities carried out by non-employees, please state which party (or parties) carried out these activities.

19.Does Monsanto deny that some or all of the Sauget Area 1 sites contain wastes generated from its manufacturing processes at either or both of the plants (mainly at Krummrich)? If Monsanto so denies, provide all information and documentation which supports this denial.

20.Does Monsanto deny that at least a portion of the chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines and/or PCBs which have been found to exist in Sauget Area 1 sites was used, originated, or was generated at its Queeny or Krummrich plant?

21. Does Monsanto deny that some or all of the wastes found to be present at site R in Sauget Area 2 is chemically identical to the wastes found at site G in Area 1? If Monsanto so denies, provide all information and documentation which supports this denial.

22.Identify all waste disposal contractors employed or used by Monsanto for the period ending in 1967. Also:

a. Describe how these disposal contractors handled Monsanto wastes, including the terms of any contractual arrangements with each;

b. Describe how Monsanto controlled where and how these waste disposal contractors disposed of its wastes;

c. Was it Monsanto's practice or policy to dictate or choose where these wastes would be disposed of or did Monsanto leave the disposal of the waste up to them?

23.Did Monsanto or any of its consultants, agents, or contractors at any time secure the services of Leo Sauget or his company (later named "Industrial Salvage & Disposal, Inc.") to process, accumulate, treat, remove, haul or dispose of any hazardous materials or fly ash Monsanto generated at either the Queeny or Krummrich plants? If so, describe the nature of these services, when they were rendered, and all contracts or agreements associated with these services. In particular, describe the arrangement with this company regarding where Monsanto wastes and/or fly ash were to be disposed of.

24.Did Monsanto or any of its consultants, agents, or contractors at any time secure the services of Paul Sauget or Sauget & Company to perform the services referenced in 23., above? If so describe the nature of these services, when they were rendered, and all contracts associated with these services. In particular, describe the arrangement with this company regarding where

Monsanto wastes and/or fly ash were to be disposed of.

25.Did any Monsanto employee, contractor, or agent, directly or indirectly, coordinate, manage or in any way oversee any chemical waste disposal activities on any Leo Sauget or Paul Sauget-owned properties included within the Sauget Area 1 sites?

26.Answer 22 - 24 above regarding the U.S. Chemical Warfare plant and wastes generated at this facility.

27.Did Monsanto or any of its consultants, agents, or contractors at any time secure the services of Harold Waggoner or Waggoner & Company to process, treat, accumulation, move, haul, or dispose of hazardous materials and/or fly ash? If so, describe the nature of these services and all contracts or agreements associated with these services. Also describe the arrangement with this company regarding where Monsanto wastes were to be disposed of.

28.Identify any and all trucking firms or disposal contractors hauling Monsanto chemicals, chemical wastes, by-products or off-specification products that has used any services of Harold Waggoner or Waggoner & Company, Leo Sauget, Paul Sauget, Industrial Waste Salvage Inc., or Sauget & Company. Provide all contract or agreements associated with these services.

29.Describe in detail the methods used at the Krummrich plant for handling process wastewater and sanitary discharges prior to the plant's hooking up to the Village of Sauget's (then the Village of Monsanto's) process water sewer interceptor system. When did the plant hook up to this system?

30.Describe how the interceptor junction structure at the north end of Dead Creek in the sewer system worked after the hook up to the Physical/Chemical plant. Identify the number of bypasses of the interceptor system which have occurred and the volume of wastewater discharged in each bypass event. Describe under what conditions the bypasses occurred, as well as nature of the wastewater discharged and area or these wastewaters went during and after bypass events. When was this bypass point closed and what prompted its closure.

31.Prior to the construction of the Village of Sauget's (then the Village of Monsanto's) sewer system, did Monsanto (and/or other industries in the Village) ever, whether intentionally or by accident, spill or discharge process wastewaters, sanitary discharges and/or liquid chemical wastes directly into Dead Creek? Describe these spills or discharges.

32.Identify and describe all discharges or spills to Dead Creek from the Krummrich plant before and after the Village of Monsanto's sewer system was constructed?

33.Answer 29 - 32 above regarding the U.S. Chemical Warfare

Service plant.

34. Provide all documents and pleadings associated with the civil lawsuit filed by citizens of Cahokia against Monsanto sometime in the 1940's

35.How did Monsanto handle, treat, and dispose of bottom ash and fly ash wastes generated from its power plant(s) at Queeny and Krummrich plants? Does Monsanto have any knowledge that these materials were or could have been used for cover material at Sites G, H, I and/or L? If so, describe how these materials were used for this purpose.

36.In the "Notification of Hazardous Waste Site" form completed for the Queeny plants, dated May 5, 1981, Monsanto admits to having disposed of drums below the ground in a landfill along Falling Springs Road.

a. Where is the precise location of the landfill referenced in this Notification, e.g., "the Sauget, Monsanto, Illinois" Landfill?

b. Were any other landfill or landfills not referenced in the Notification used for the disposal of wastes generated or used at the Queeny plant? If so, describe.

c. Provide any and all information and/or documentation indicating which specific landfill or landfills were used to accept the drums referenced in the Notification.

d. Provide the names of all personnel who would possess any knowledge regarding which landfill or landfills were used to accept the drums referenced in the Notification.

e. How was the figure for "Total Facility Waste Amount," calculated (or why was it not calculated)?

f. How was it known that the drums subject to the Notification form contained organics, inorganics, and solvents? Provide all documents and information which relates to this reported information, as well as all information which describes in greater detail the types and characteristics of the wastes contained in these drums.

g. Provide all documents which pertain to or provide information regarding which landfill or landfills were used to accept the drums referenced in the Notification form, as well as the volume and types of wasted contained in the drums.

h. What is the basis for stating that the use of the landfill referenced in the Notification form stopped in 1957?

i What is the basis for the Monsanto plant manager signing the Notification form as a "Transporter". Identify all other persons

or companies which were involved in the transportation of the wastes identified in the Notification.

36. Provide the same information as requested in 35, above with regard to the RCRA Section 103(c) Notification of Hazardous Waste Site form for the Krummrich Plant dated May 15, 1981.

37. On May 15, 1981, Monsanto filed a Section 103(c) Notification for the disposal at Krummrich plant wastes at the W.G. Krummrich Landfill on Route 3. Describe how the wastes reported on this Notification differ from the wastes reported on the Notification filed for the Krummrich wastes disposed of at the Falling Springs landfill?

38. Identify and describe all past and present solid waste units (e.g., waste piles, landfills, surface impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) on the Krummrich plant property. For each solid waste unit identified, provide the following information:

a. A map showing the unit's boundaries and the location of all known solid waste units, whether currently in operation or not. This map should be drawn to scale, if possible, and clearly indicate the location and size of all past and present units;

b. The type of unit (e.g., storage area, landfill, waste pile, etc.) and the dimensions of the unit;

c. The dates that the unit was in use;

d. The purpose and past usage (e.g., storage, spill containment, etc.);

e. The quantity and types of materials (hazardous substances and/or any other chemicals) located in each unit; and

f. The construction (materials, composition), volume, size, dates of cleaning, and condition of each unit;

g. If the unit is no longer in use, when and how such unit was closed and what actions were taken to prevent or address potential or actual releases of waste constituents from the unit?

h. A complete description of any and all releases, or spills or leaks of hazardous substances, or any materials or liquids containing or contaminated with hazardous substances, from the unit.

39. Provide copies of all local (e.g. Village of Sauget or Monsanto) environmental permits or licenses ever granted for the Krummrich plant or any part thereof.

40. For each disposal of PCBs, material containing PCBs, PCB Articles, PCB Equipment, and PCB Containers (as defined at 40

C.F.R. § 761.3) from the plants or on plant property and which contained PCBs at concentrations of 50 ppm or greater, provide the following information:

a. Identify the type of materials containing PCBs, PCB Article, PCB Equipment, and/or PCB Container, as well as its contents. Give any serial numbers or identification numbers or codes;

b. Quantity of material containing PCBs and numbers of PCB Articles, PCB Equipment, and PCB Containers, as well as the quantity of their contents;

c. PCB concentrations;

d. Dates of disposal;

e. Name and location of the PCB disposal facility or PCB storage facility not part of the Queeny or Krummrich plants;

f. Location and description of the PCB disposal or fill areas at the Queeny or Krummrich plants.

42. Provide the following information for chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines, and PCBs:

a. A description of how the substance is or was generated and/or used at the plants;

b. An estimation of the quantity of the substance generated or used at the plants;

c. A description of Monsanto's storage, treatment, and/or disposal policies or practices for each substance throughout the operating history of the Queeny and Krummrich plants;

d. Any and all documents, reports, forms, permits or manifests indicating the substance transportation to and/or disposal in Sauget Area 1 sites.

42. For each spill or discharge or release of any hazardous materials used or generated by Monsanto, including chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines and PCBs, provide the following information:

a. Source of spill, discharge or release;

b. concentration of the source;

c. Location of spill, discharge or release;

d. Type of material onto which spill or discharge occurred;

e. Area over which spill or discharge occurred;

f. Date of the spill or discharge;

g. Summary of any test results from area where spill or discharge occurred;

h. Diagram or map of spill or discharge area showing location of any sampling points;

i. Description of any cleanup activities and summary of any post cleanup verification sample results;

j. Disposition of any hazardous material from any cleanup;

k. All reports, memoranda, or analysis concerning the spill, discharge or release.

43. For each pit, pond, lagoon, settling tank, oil/water separator, water treatment unit or similar structure located at the plants, provide the following information:

a. Location and description of these areas or structures;

b. Dates of any and all cleanings or removals of any material from these areas or structures. List most recent cleanings or removals first;

c. Reason for each cleaning or removal;

d. Description of the method employed for each cleaning or removal;

e. Description of any hazardous material removed, including PCBs, and quantity of material removed;

f. Concentrations of hazardous materials removed, including PCBs, released or discharged on or off site from these areas or structures;

g. Disposition of material removed;

h. Any test data, including PCB test data, concerning these areas or structures not associated with a cleaning or removal;

i. Identification and description of any release or discharge on or off site from these areas or structures;

j. Dates when release or discharges occurred;

k. Type of material and concentrations of releases or discharges;

l. Description of any cleanup activities for the releases or discharges;

m. Summary of any post-cleanup verification sampling and disposition of material from the cleanup;

44.Provide a copy of any annual documents or annual document logs required to be kept for the Facility in accordance with 40 C.F.R. § 761.180(a).

45.Provide any information you have generated or gathered on groundwater flow and groundwater quality on or around the plants and/or on or around Sauget Area 1 other than that generated by the Monsanto groundwater study conducted in 1984.

46.Provide any information and documents you have generated or gathered (including documents obtained in discovery in lawsuit Cerro v. Monsanto Co., Docket No. 92-CV-204âWDS) about or in any way concerning the contamination found to exist in the Sauget Area 1, including any information concerning the source of such contamination.

47.Describe all measures taken by Monsanto or its consultants which have been taken to characterize, measure, sample or in any way test for the presence of hazardous materials at or around Sauget Area 1.

48.Provide a history of the ownership of the Queeny plant.

49.Provide copies of any sampling analytical reports which are responsive to any of these questions and clearly indicate on each analytical report copy the question(s) to which it is responsive.

MEMORANDUM

Date: June 9, 1994

From: Paul E. Takács, BOL/DRM/FSMU

To: Terry G. Ayers

Subject: L1630200005 -- St. Clair County
Sauget Sites (Area 1) -- Sauget
Superfund/Technical Reports

This is to document events concerning underground fires that have occurred at Site G over the past few months. After IEPA was notified that portions of the site appeared to have been burnt, a recommendation was made to perform surface soil sampling to determine if the site posed a greater health hazard. Because of the presence of very high concentrations of PCBs and chlorophenols prior to the burn, dioxin sampling of soils was included.

On June 3, IEPA assisted USEPA in taking composite soil samples inside the more visibly contaminated areas within the fence that were impacted by fires. It was also noted that two separate areas of the drum disposal area at the east-central portion of Site G were still burning. The smoke had a reddish color and the HNu noted a 70ppm concentration. A pinkish-brown crystalline substance was found next to the burning areas. Composites of the crystalline substance as well as several tar-like products and a material resembling pumice were taken at Site G.

Several dioxin samples were composited just outside the fence at Site G. In addition, one soil composite (at Judith Lane and CS-C) was taken between the neighborhood and the alleged burning at the site. An interview with an employee of the property owner (Wiese Engineering) said that the Sauget Fire Department was called to put out the fires. The employee noted that the fire department flooded the burning area with water 24 hours a day for two weeks. Because of this action, a low lying area of about one acre was flooded with contaminated runoff. A water sample at this area was taken also.

IEPA and USEPA returned to Site G to conduct air sampling on June 6 after it was learned that the burning was again out of control. Summa canisters were set up around burning areas as well as around the perimeter of the site. A station was also set up near the residential area on Judith. After the air sampling was conducted, the Sauget Fire Department indicated that they had been called to extinguish fires at the site about four or five times since early last April. The fire department chief said that his firemen wear full protective gear when dealing with fires at Site G which he said resulted from spontaneous combustion.

The property owner was told to notify IEPA in the event that the fires start again. If they do, USEPA will conduct further air sampling to determine offsite effects of the burning. It is likely that Site G would be eligible for emergency action (e.g. capping) if further air sampling indicates a significant offsite health impact. IEPA has long recommended to USEPA that a surface removal would have to be conducted before the placement of a cap at Site G.

cc: Ken Mensing
John Justice
Glen Savage
Larry Eastep
Stan Black
Tom Hornshaw
Kim Hubbert
David Webb, IDPH
Division File

NONPRIORITY POLLUTANT COMPOUND LIST - SAUGET SITES

Volatile Organics

Methyl-iso-butyl ketone
Methyl-isoamyl ketone
m-Xylene
o-Xylene
p-Xylene

Acid Extractable Organics

4-chlorophenol

Base/Neutral Extractable Organics

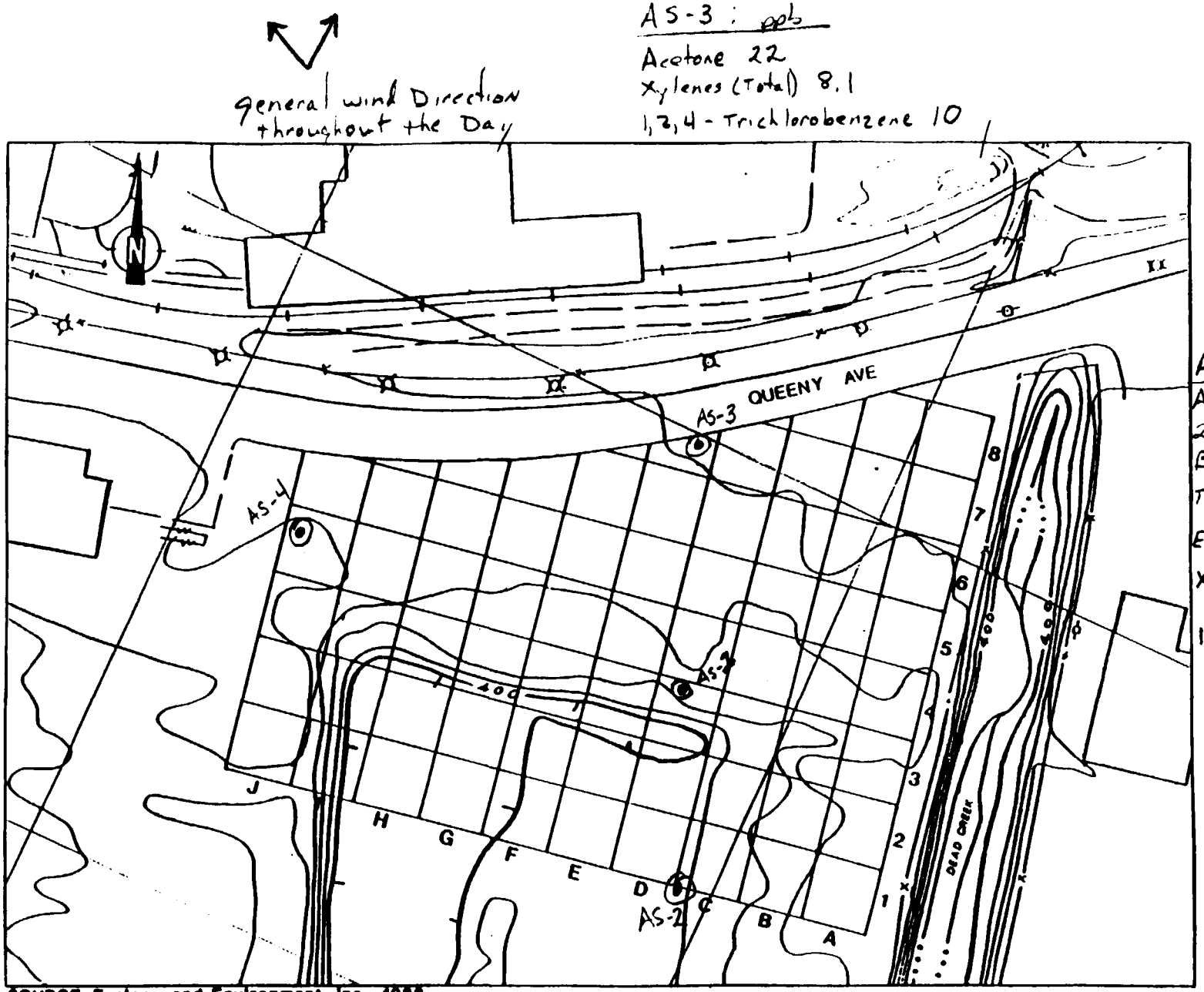
2-Nitroaniline
4-Nitroaniline
2-Nitrochlorobenzene
4-Nitrochlorobenzene
2,4-Dinitrochlorobenzene
3,4-Dinitrochlorobenzene
4-Nitrophenylamine
Triphenyl Phosphate

AS-3 : ppb

Acetone 22
Xylenes (Total) 8.1
1,2,4 - Trichlorobenzene 10

AS-4: ppb

Acetone 12



AS-1 (PPB)

Acetone - 87
2-Butanone - 30
Benzene - 130
Toluene - 2.1
Ethylbenzene - 3.0
Xylene (Total) - 14
1,2,4-Trichlorobenzene - 35

3-17

AS-6 : Backgrd on levee southwest of Site G ~ 1 mile (west of TANK Farm)

Acetone - 20 ppb

FIGURE 3-6 GRID SECTION DESIGNATIONS FOR SURFACE SOIL SAMPLING AT SITE G

AS-2 : (ppb)

Acetone - 13

AS-5: Dead Creek + Judith Lane ppb

AS-5 Acetone 22
Xylenes (Total) 2.1
1,2,4-Trichlorobenzene 4.3

I.1
11/7/94

FROM: JEFF GORE

TO: SAUGET AREA 1 TEAM, IEPA & USEPA MANAGEMENT

DATE: 1/17/94

SUBJECT: ISSUES REGARDING SAUGET SITE G REMOVAL ACTION

My issues regarding the potential removal action at Site G are summarized as follows:

1) Honoring the lead agency in negotiations: In January 1994, USEPA and IEPA representatives met in an RDT meeting to discuss the status of the Sauget Area #1 Superfund site. As a result of that meeting, it was determined that USEPA would take the lead in enforcement activities and negotiations with the PRP group. IEPA showed resistance to giving up the technical lead but agreed to support USEPA if negotiations were successful.

My concern is that IEPA (both staff and management) is not willing to give up the lead and project decision making process to USEPA regardless of the potential success of USEPA negotiations. An RPM, and to a less extent, an OSC cannot successfully negotiate with a PRP group under the Superfund program if the state agency will not support their efforts and decisions. IEPA must be willing to give up the technical and decision making lead to USEPA if we are expected to negotiate properly with the PRP group. If IEPA won't support USEPA efforts, they should not expect us to negotiate under Superfund and should instead try to remediate the site under their own state laws and programs.

2) Unexpected last-hour changes in the removal action: Over 6 months ago, I brought up that my primary concern as an RPM under SACM was to try and put a "permanent" cap on site G if we negotiated a removal action with the PRP group. After Paul, Sam, Tom Martin and I agreed to this; the main concern then became what IEPA would require for site G, so that we wouldn't have to do additional studies or put another cover on the site during a future remedial action. After sampling revealed PCBs and dioxins, Paul, Sam and I agreed that If the removal action utilized in-situ treatment of oily areas at the site before putting a clay cover on, the soil area at site G wouldn't need to be addressed during remedial action. The only issue became how thick the clay cover needed to be.

Then after we approached Monsanto with this proposal and they showed a strong interest in implementing the remedy, IEPA came back with comments in late December both through Paul and management that the site G cover could only be considered an

"interim" remedy and that additional treatability studies needed to be done to determine whether or not material in site G should be treated off-site. These last-hour changes will probably destroy any successful negotiations with Monsanto at site G, and go against my better judgement on what should be done at the site as well. I question whether IEPA even cares if negotiations succeed with Monsanto on this removal action.

If negotiations break down, Sam will have no choice but to go ahead and put native fill over the uncovered site G to both meet his deadline for the removal action and take care of the imminent and substantial endangerment.

3) Inconsistencies with other actions at the Sauget sites:
The Sauget area sites are by IEPA definition one of the most highly contaminated areas in Illinois. The sites contain numerous hazardous waste disposal landfills in a highly industrial area. All other IEPA actions at the Sauget sites concerning hazardous waste disposal landfills have involved clay or other covers to contain the hazardous materials. It seems totally appropriate to contain the hazardous waste areas on-site, especially when you consider the location and the nature of numerous PCB laden areas. I see no reason why IEPA should require a treatability study on the wastes in site G based on the site history, location and data already available for the site.

DIOXIN

RIEDEL ENVIRONMENTAL SERVICES, INC.

ERCS REGION V

QA/QC DATA REVIEW

TO:	Sam Barrios, OSC, USEPA, Region V
FROM:	Mark Douglas, Riedel Tond D Coordinator
THRU:	DAN Wilson, QA/QC Manager
PROJECT:	Sauget Landfill Site 6
JOB NO.	8168
REFERENCE:	Sample #4-7-1, 4-7-2, 4-7-3
METHODS:	SW846 Method 8280

The following two tier review is based on information outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures. The document is intended for guidance in assessing and substantiating data for various users. The SW846 Method 8280 was used and took precedence as applicable

I. METALLIC INORGANIC PARAMETERS

A. Holding Times:

Acceptable
No Action
Action

B. Initial and Continuing Calibration:

Acceptable
No Action
Action

C. Method Blank:

Acceptable
No Action
Action

D. ICS Sample Provided:

YES
NO

E. MS/MSD/Surrogates:

Acceptable
No Action
Action

II. GC/MS ANALYSIS: BNAs SVOCs VOCs PESTICIDES PCBs (circle one)

* Tetrachloro - through octachloro - dibenzo-p-dioxins and Furans

A. Holding Times:
Collected 5-11-95 Received 5-12-95 — Acceptable
Analyzed 6-5-95 — No Action
Action

B. Instrument Performance:
GC/MS - All data, chromatograms appear within guidelines of SW846 8280. — Acceptable
No Action
Action

GC Column = DB5-006/005

C. Initial and Continuing Calibration:
Summary of ICAL shows Avg RRF ok and % RSD <15% — Acceptable
No Action
DAILY Calibration ~~% D~~ RRF's of all analytes are within ±30% ~~DW~~ of the mean value established by initial analysis of the calibration standard solution. — Action

D. Method Blanks:
Method Blanks ran with Spike no contamination @ or above DL (ppb) — Acceptable
LAB Spike within QC % Rec Limits for lab — No Action
Action

E. MS/MSD/Surrogates:
Recoveries For standards were outside of QC advisory Limit as Follows. OSD-2 = Internal Standard 13C12-OCDD, OSD-3 = Internal Standard 13C12-2378-TCDD and 13C12-OCDD. However, all control Samples were within QC advisory limits For every Standard. Problem associated with matrix interferences — Acceptable
No Action
Action

F. Compound Identification:
RT (min) For specific analytes Flagged For E to depict above or below calibration range. — Acceptable
No Action
Action

G. Compound Quantitation and Detection Limits:
Internal Standards, Cleanup and Recovery Standards Run — Acceptable
No Action
Action

Samples Cleanup Acid Wash, Carbon Column

III. INORGANIC PARAMETERS (ie. pH, TOC, etc.)

IV. OVERALL ASSESSMENT OF THE DATA

BASED UPON THE INFORMATION PROVIDED, THE DATA IS CONSIDERED **ACCEPTABLE, NOT ACCEPTABLE** FOR USE AS REPORTED.

COMMENTS:

Mark S Dyce
Reviewer

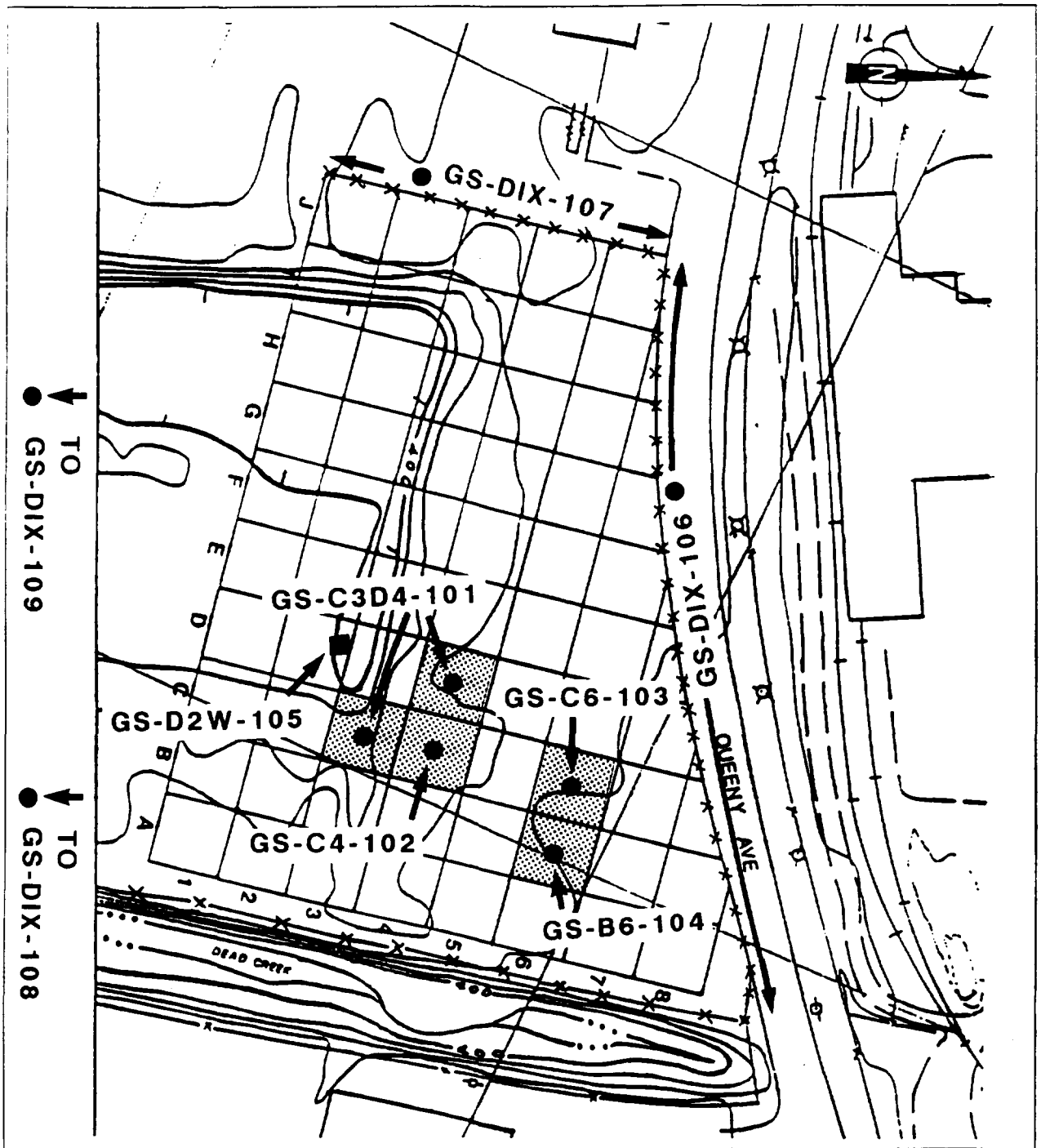
TSD coordinator
Title

6-14-95
Date

Daniel J Wilson
Reviewer

QA Manager
Title

7-18-95
Date

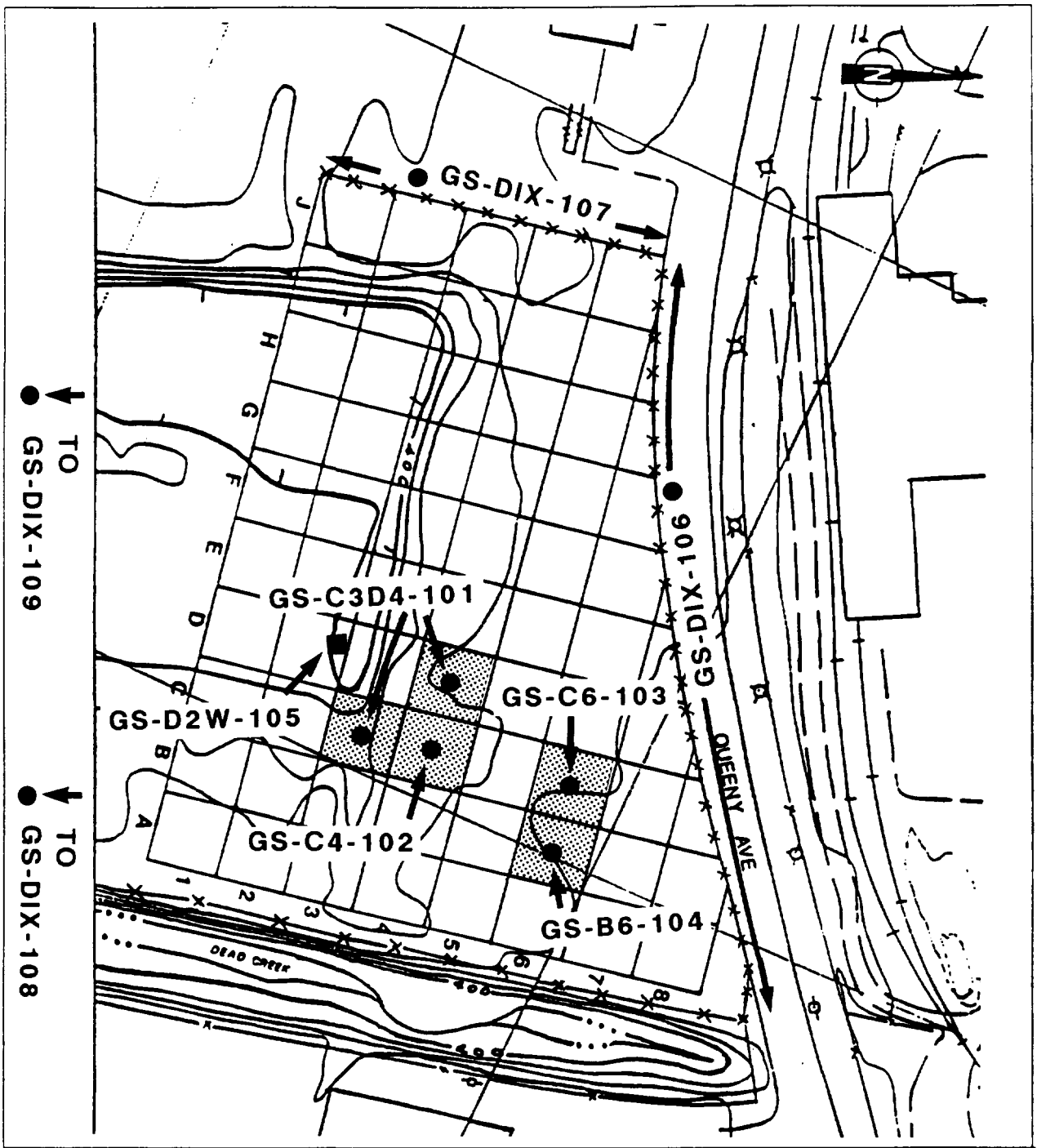


LEGEND

- ● SURFACE SOIL SAMPLE
- ■ SURFACE WATER SAMPLE
- ✱✱✱-FENCELINE

ecology and environment, inc.
Technical Assistance Team
Region V
111 West Jackson Blvd.
Chicago, IL 60604

TITLE: SAMPLE LOCATION MAP FOR 5/27/94		FIGURE #: 3
SITE: SAUGET AREA 1 - SITE G		SCALE: NOT TO SCALE
CITY: SAUGET	STATE: ILLINOIS	PAN: EIL0836SAA

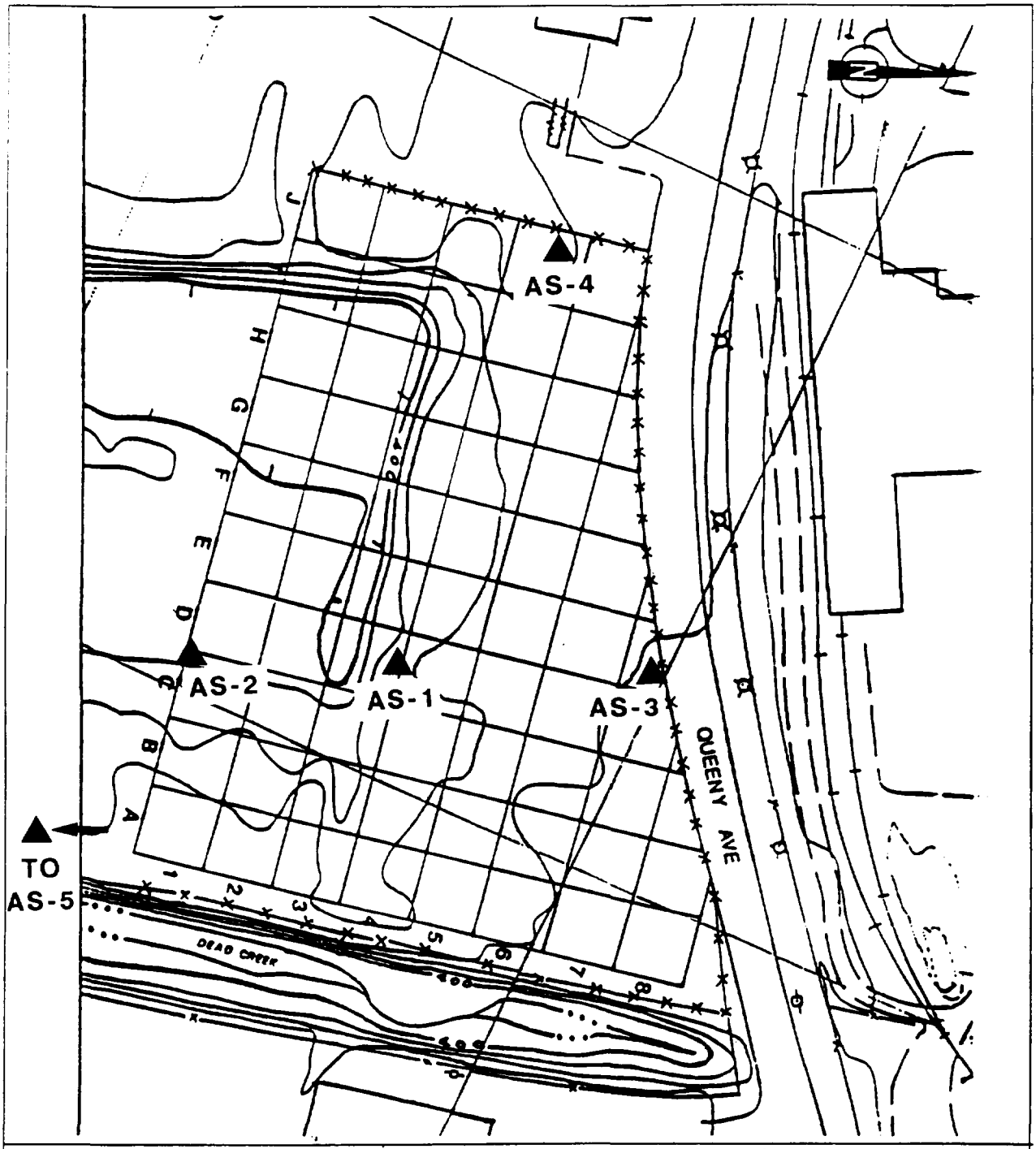


LEGEND

- ● SURFACE SOIL SAMPLE
- ■ SURFACE WATER SAMPLE
- ×××-FENCELINE

ecology and environment, inc.
Technical Assistance Team
Region V
111 West Jackson Blvd.
Chicago, IL 60604

TITLE: SAMPLE LOCATION MAP FOR 5/27/94		FIGURE #: 3
SITE: SAUGET AREA 1 - SITE G		SCALE: NOT TO SCALE
CITY: SAUGET	STATE: ILLINOIS	PAN: EIL0836SAA



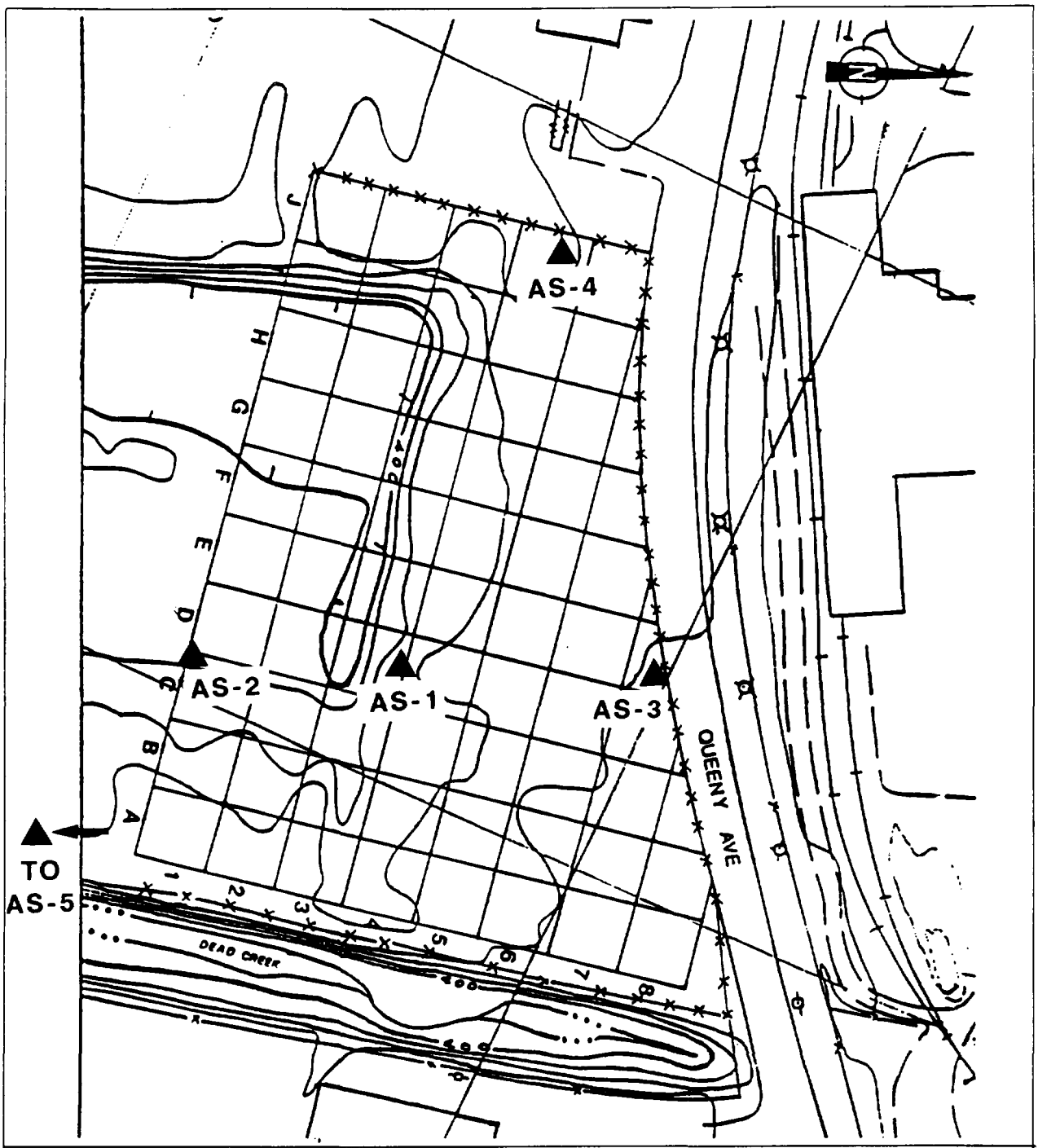
LEGEND

▲ SUMMA AIR SAMPLE

✕✕✕ FENCELINE

ecology and environment, inc.
Technical Assistance Team
Region V
111 West Jackson Blvd.
Chicago, IL 60604

TITLE: SAMPLE LOCATION MAP - 6/6/94		FIGURE #: 4
SITE: SAUGET AREA 1 - SITE G		SCALE: NOT TO SCALE
CITY: SAUGET	STATE: ILLINOIS	PAN: EIL0836SAA



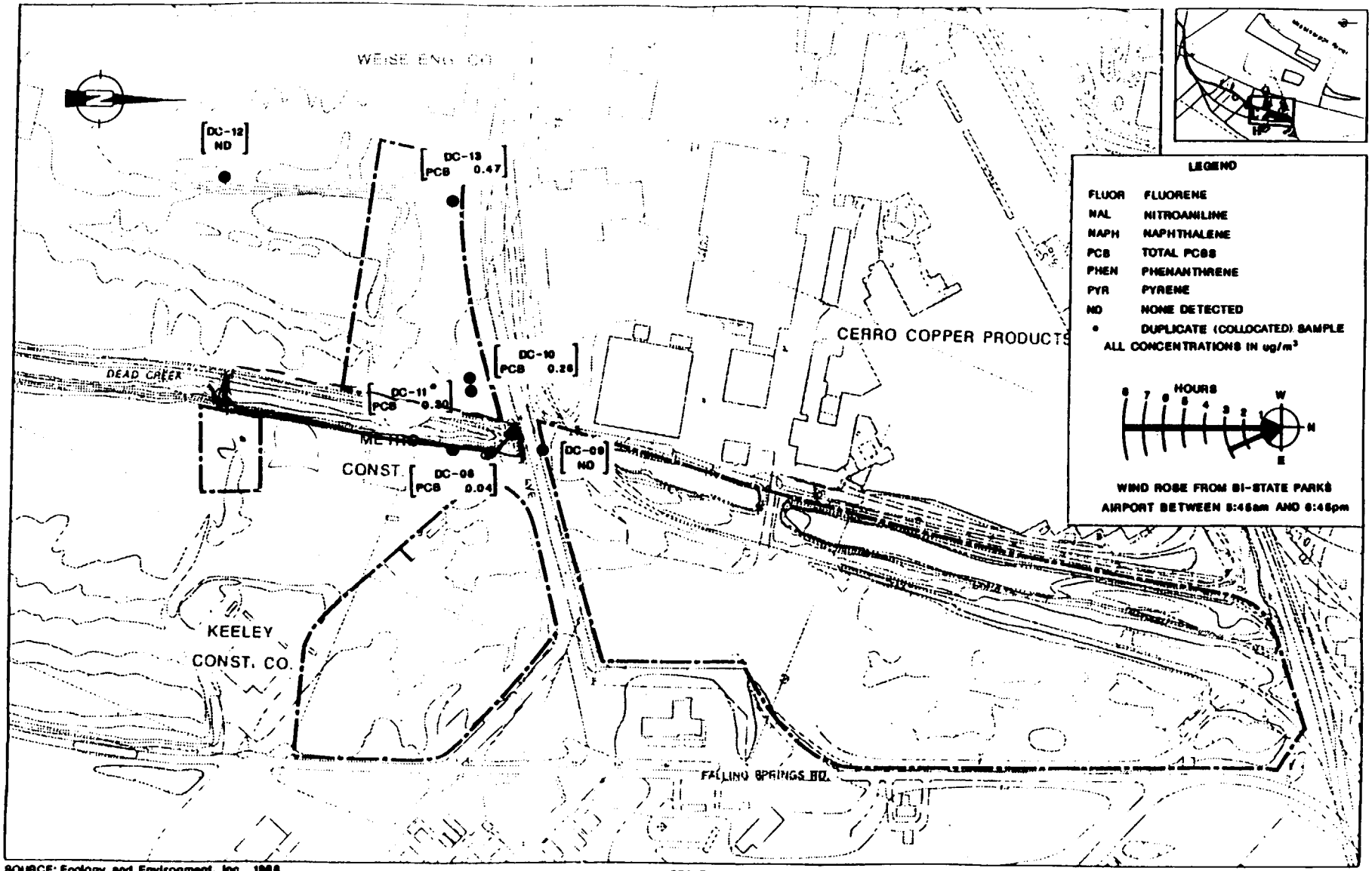
LEGEND

▲ SUMMA AIR SAMPLE

xxx FENCELINE

ecology and environment, inc.
Technical Assistance Team
Region V
111 West Jackson Blvd.
Chicago, IL 60604

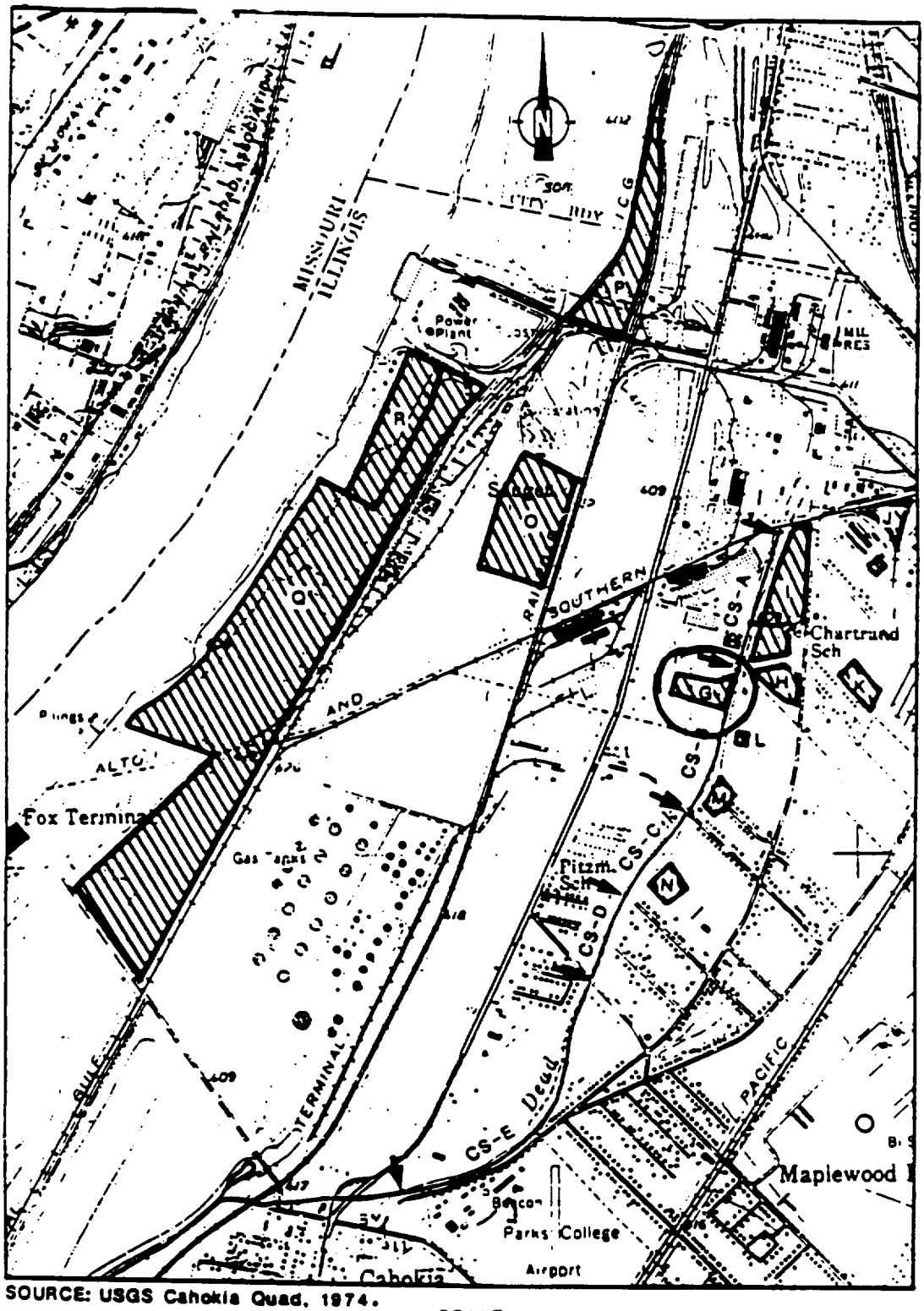
TITLE: SAMPLE LOCATION MAP - 6/6/94		FIGURE #: 4
SITE: SAUGET AREA 1 - SITE G		SCALE: NOT TO SCALE
CITY: SAUGET	STATE: ILLINOIS	PAN: EIL0836SAA



SOURCE: Ecology and Environment, Inc., 1988.

FIGURE 4-51 ANALYTICAL RESULTS FOR SELECT ORGANIC COMPOUNDS IN AIR SAMPLES AT SITES G AND CS-8 ON JULY 17, 1987

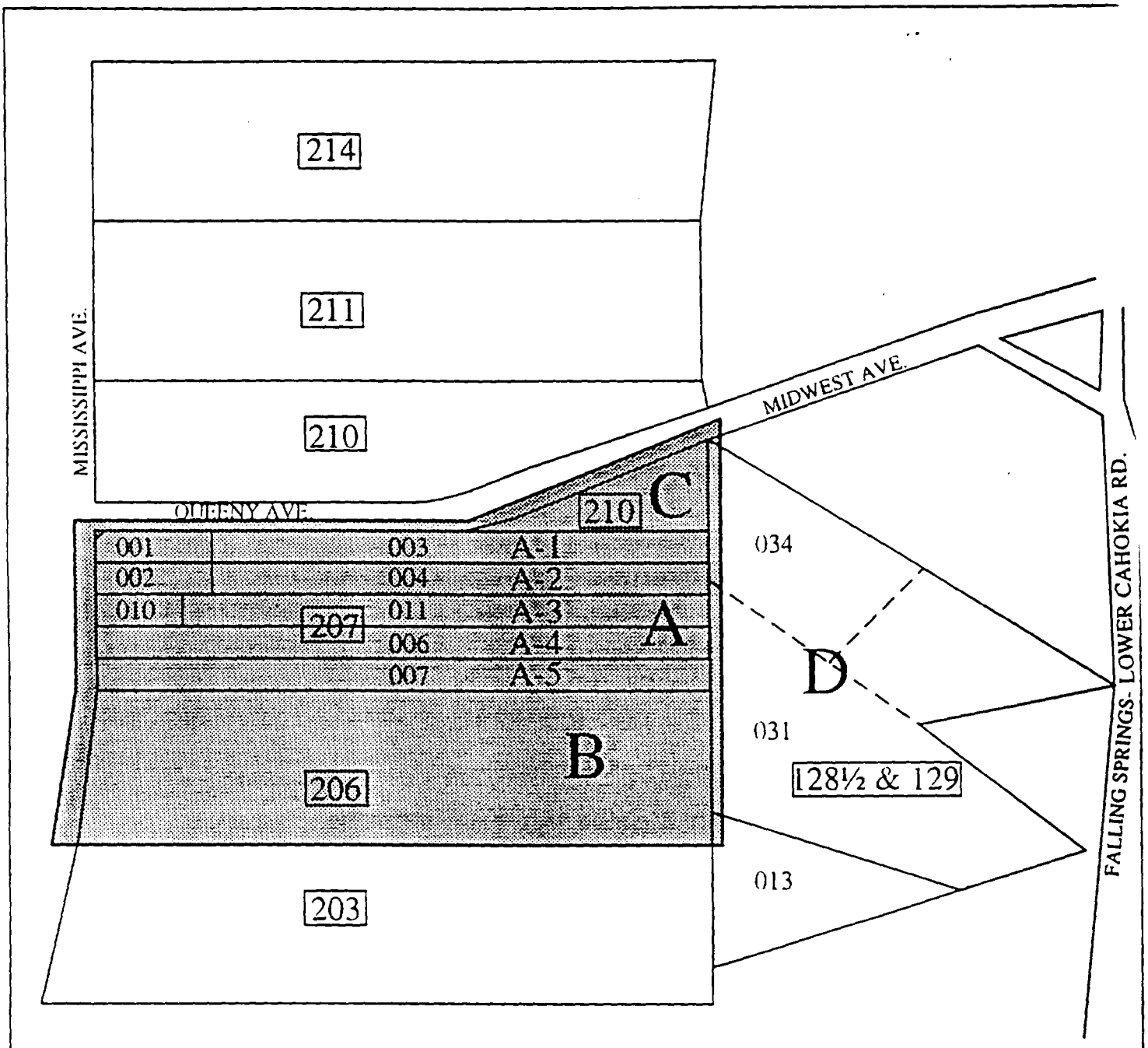
I.1
N/D



SOURCE: USGS Cahokia Quad. 1974.

Site G is circled on the above map.

EXHIBIT 1



= Sauget Site

203 = Lot Number

010 = PIN

B = Tract Number

N
W E
S

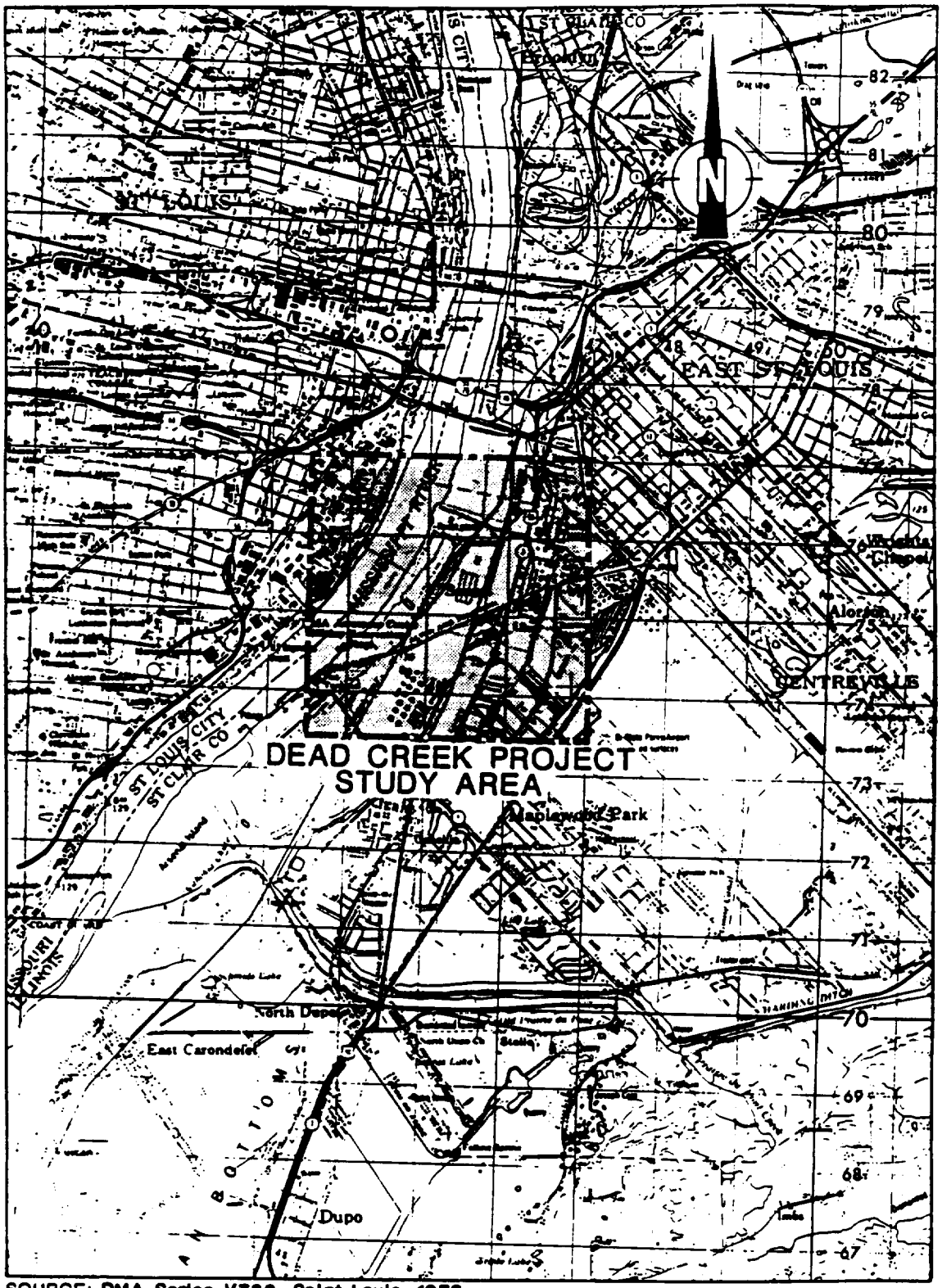
Not to Scale
Source: Modified U.S. EPA Region 5

Sauget Site
Sauget, Illinois

Figure 2
OWNERSHIP PARCEL BREAKOUT

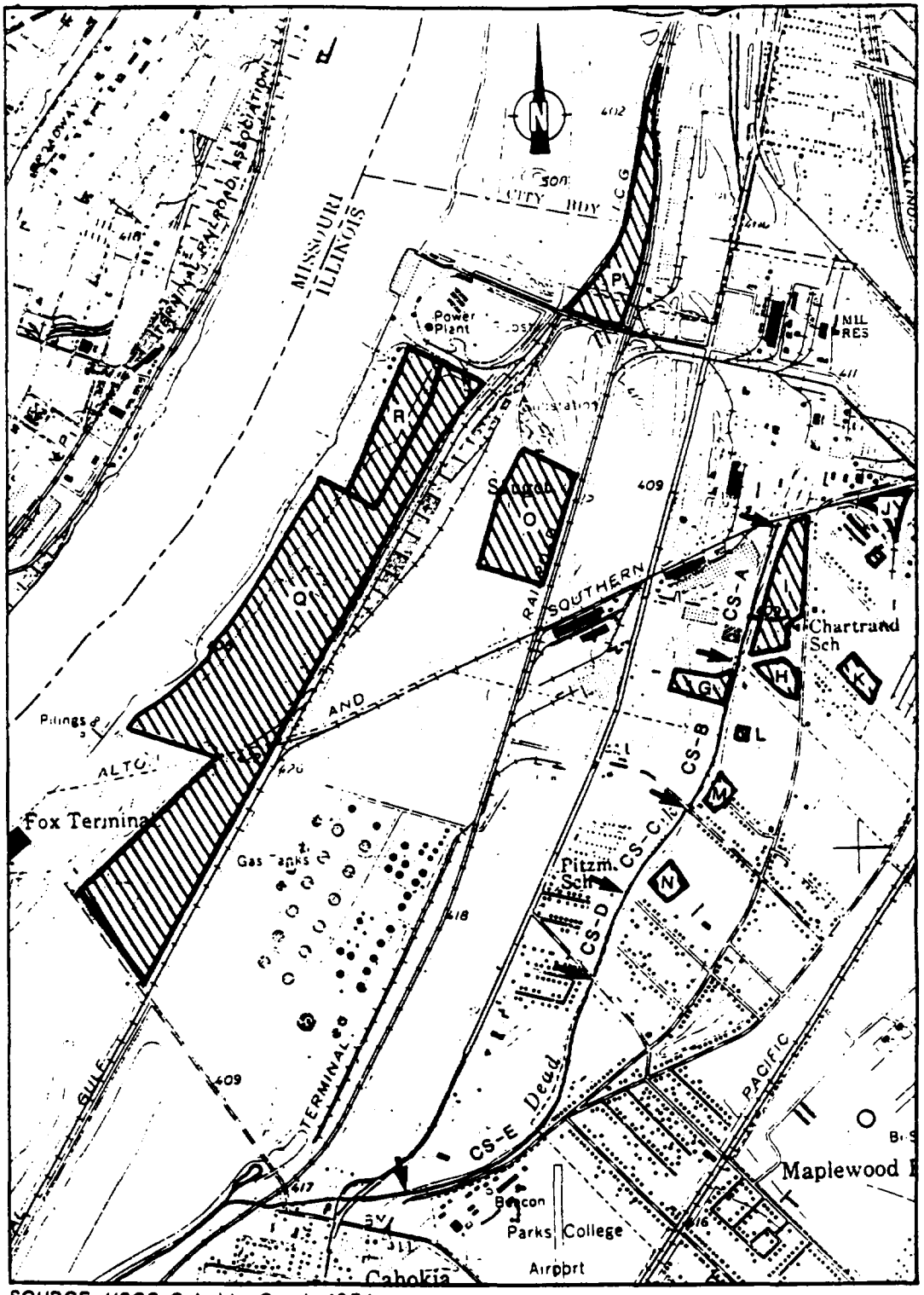
Resource Applications, Inc.

EXHIBIT 3



SOURCE: DMA Series V763, Saint Louis, 1978.

FIGURE 2-1 DEAD CREEK PROJECT STUDY AREA LOCATION

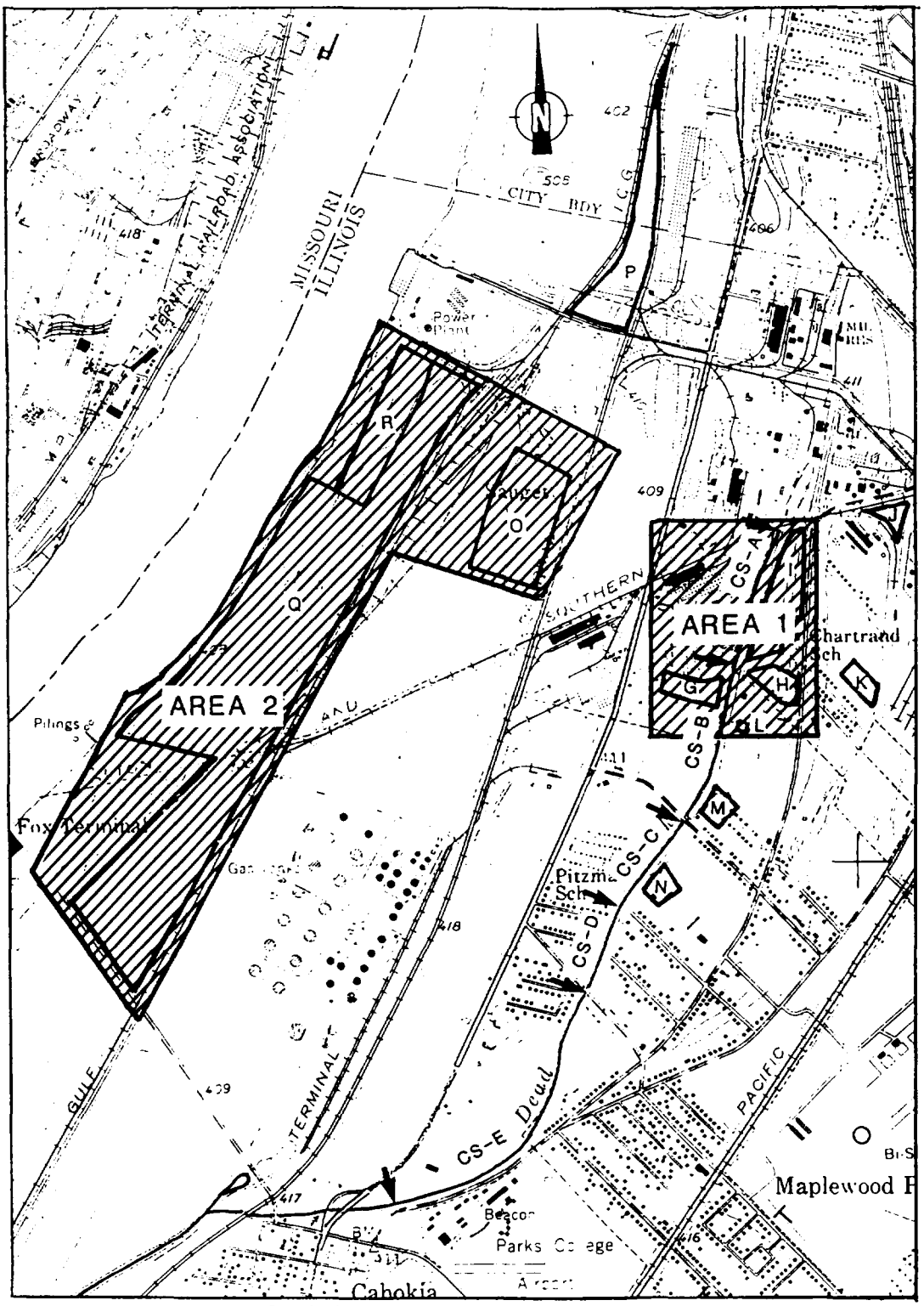


SOURCE: USGS Cahokia Quad, 1974.

SCALE

0 0.5 1 MILE

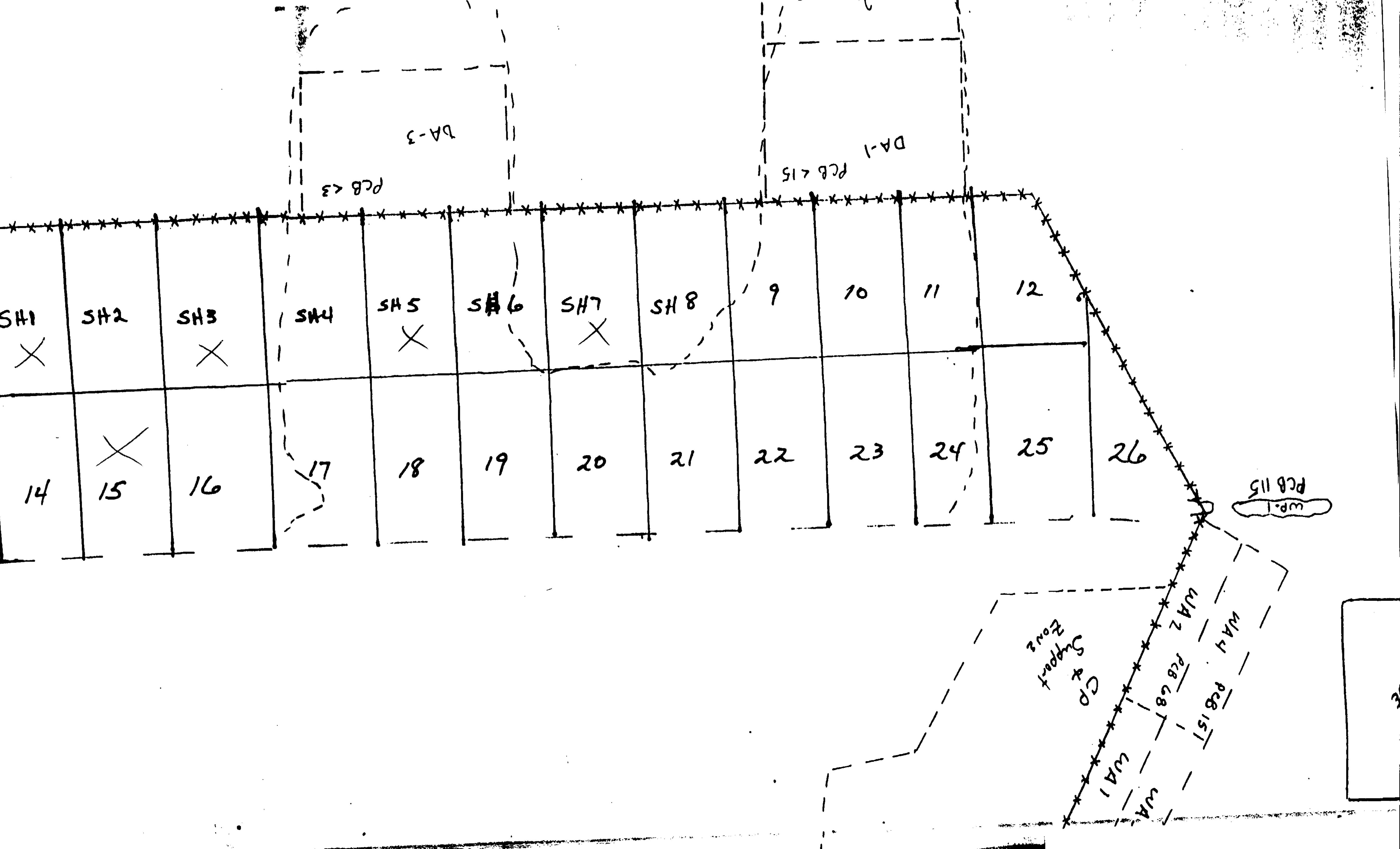
FIGURE 2-2 SITE REPORTING DESIGNATIONS FOR THE DEAD CREEK PROJECT



SOURCE: USGS Cahokia Quad, 1974.

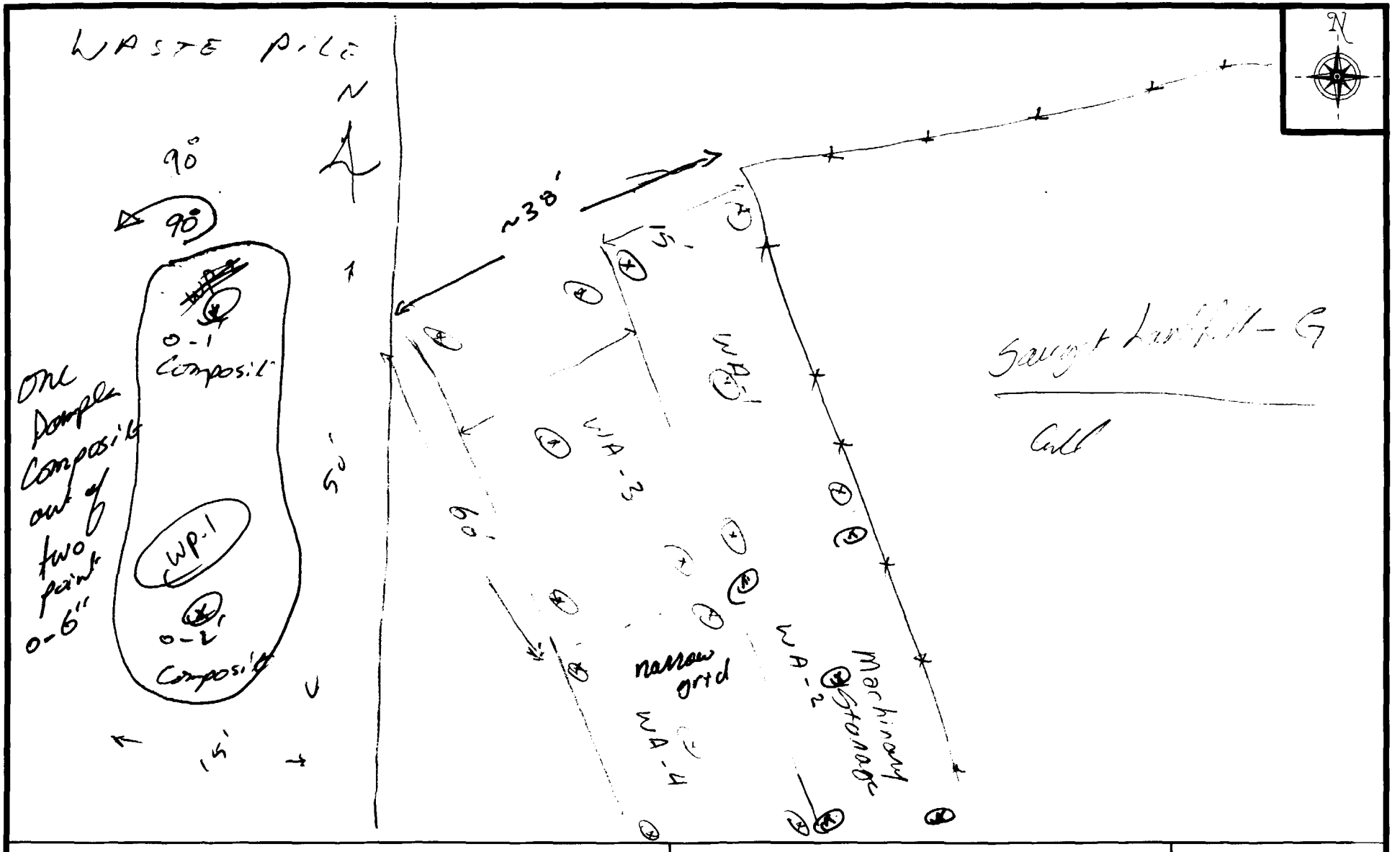
SCALE
0 0.5 1 MILE

FIGURE 2-3 SITE GROUPINGS FOR THE DCP UNDER THE REVISED SCOPE OF WORK

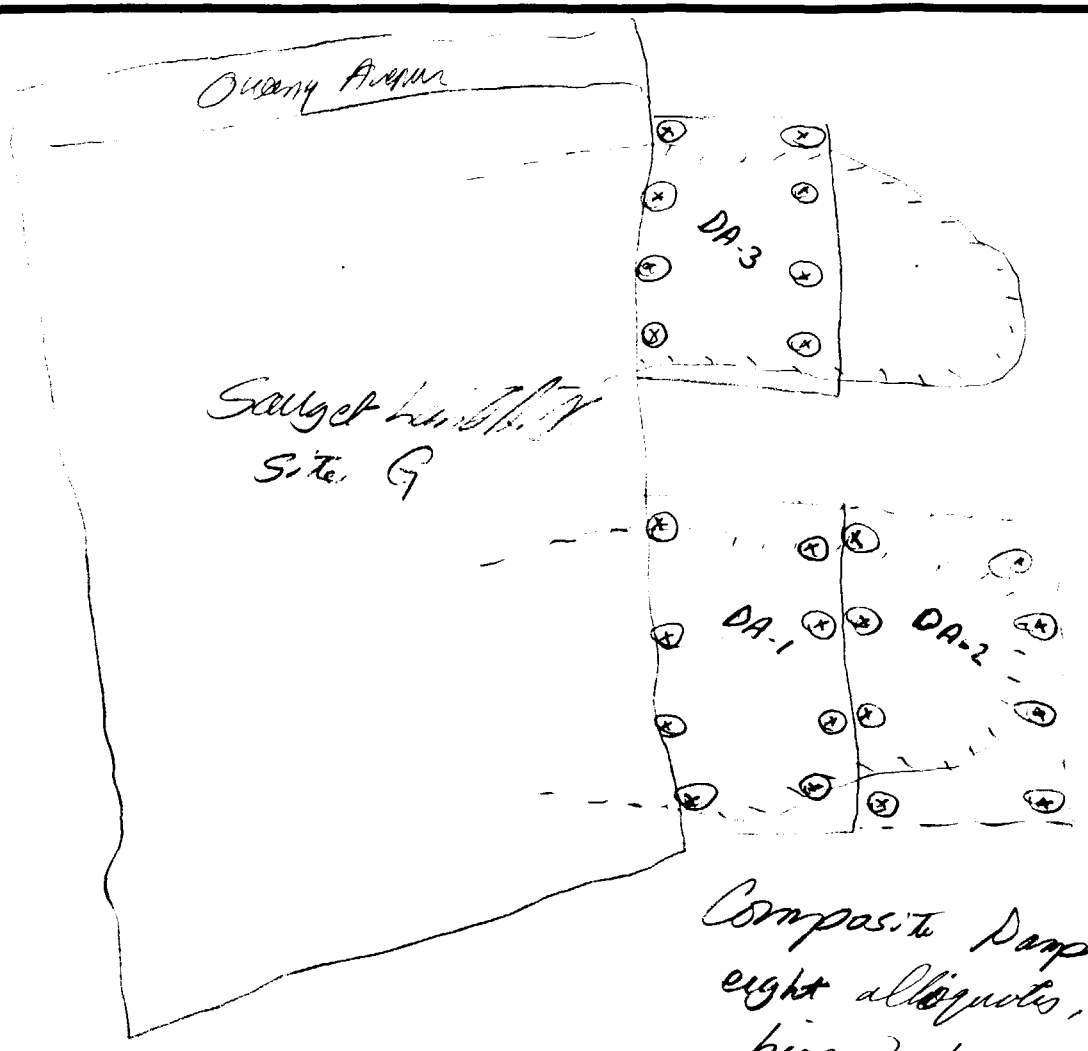


SH1
SH2
SH3
SH4
SH5
SH6
SH7
SH8
9
10
11
12
14
15
16
17
18
19
20
21
22
23
24
25
26
PCB <3
DA-3
PCB <15
DA-1
WP-1
PCB 115
CP & Support Zone
WA 2
PCB 68
WA 4
PCB 151
WA 1
WA

3/22/95

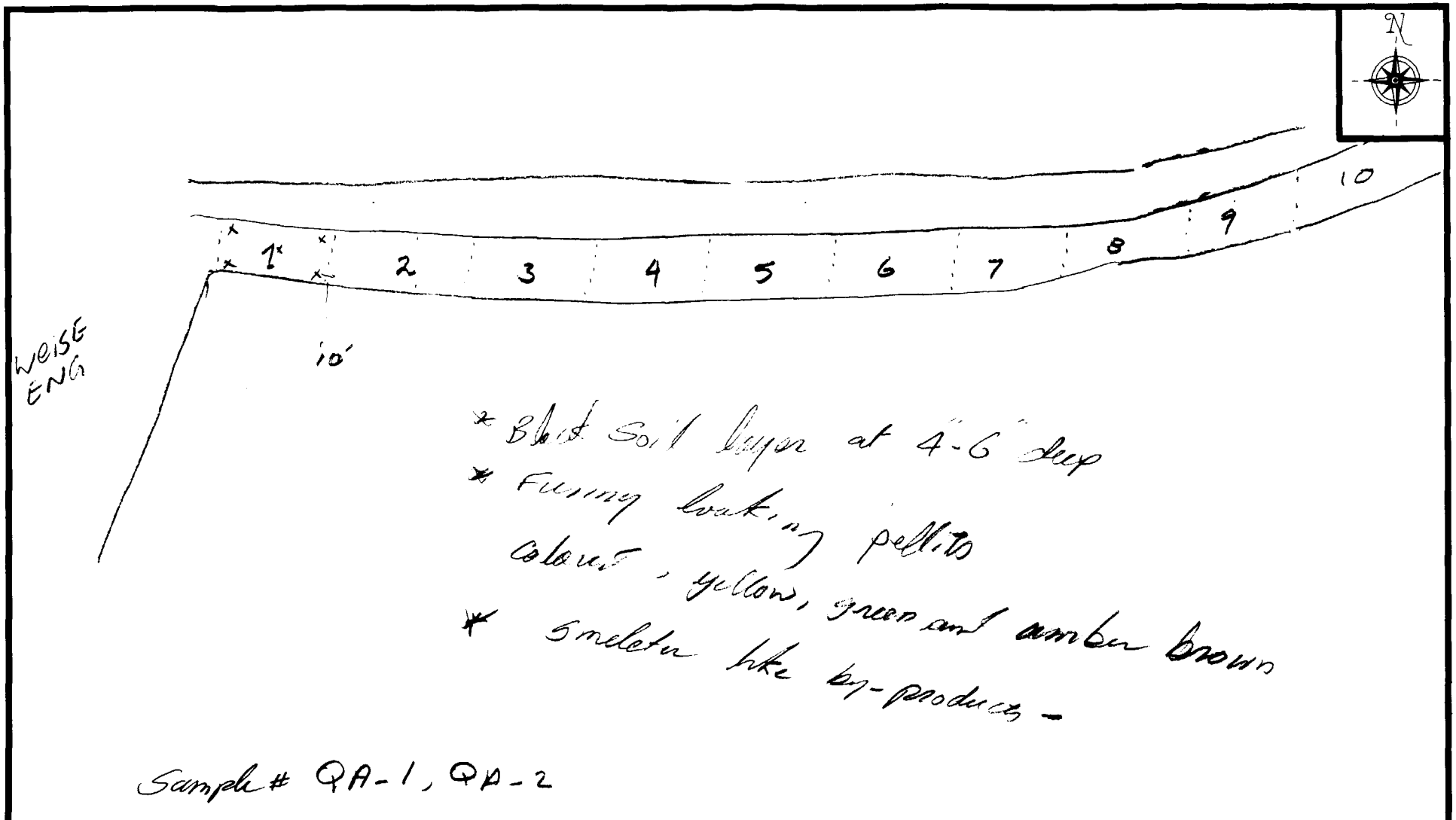


ecology and environment, inc. Technical Assistance Team Region V	SITE: SAUGET LANDFILL\SITE G		SCALE: NO SCALE
	CITY: SAUGET	STATE: IL	PAN: EIL0838FAA
TITLE: **SAMPLE LOCATION MAP WEISE AREA**	FIGURE #: 2	DRAWN BY: Sammy Sirhan	DATE: 03/22/1995



ecology and environment, inc. Technical Assistance Team Region V			SITE: SAUGET LANDFILL\SITE G	SCALE: NO SCALE
			CITY: SAUGET STATE: IL	PAN: EIL0838FAA
TITLE: SAMPLE LOCATION MAP ~~FENCED~~ AREA		FIGURE #: 3	DRAWN BY: Sammy Sirhan	DATE: 03/22/1995

DEPRESSION AREA



ecology and environment, inc. Technical Assistance Team Region V		SITE: SAUGET LANDFILL\SITE G		SCALE: NO SCALE
		CITY: SAUGET	STATE: IL	PAN: EIL0838FAA
TITLE: **SAMPLE LOCATION MAP QUEENY AREA**	FIGURE #: 1	DRAWN BY: Sammy Sirhan		DATE: 03/22/1995

CONTINUATION SHEET
RIEDEL ENVIRONMENTAL SERVICES, INC.
CHAIN OF CUSTODY RECORD

Document Number from Page 1 ______

Page 1 of 1

SEE REVERSE FOR INSTRUCTIONS

Project Name: SAUGET, SITE G
Project Number: 8168
Results To: Ken Bray
Telephone # 618/332 6508 Fax # 618/332 6520

Lab: [illegible]

Special Instructions:
Special Detection Limits:
Analyze Each Phase of Sample Yes ____ No ____ Only# ______
~~Analyze~~ Phase of Sample ______
Analyze Sample As Is, Dry Weight, Wet Weight ______

Lab ID #	Sample ID#	Sample Location	Matrix	Collection Date Time	Preservatives Code	CONTAINER SIZE	CONTAINER TYPE	No. of Containers	Test Methods: DIOXIN EQUIV. ANALYSIS							
	05D-1	05	Soil	5/11/95 0730	None	8oz	G	1	✓							
	05D-2	05	Soil	5/11/95 0735	None	8oz	G	1	✓							
	05D-3	05	Soil	5/11/95 0946	None	8oz	G	1	✓							
	X	X	X	X	X	X	X	X	X	X	X	X				

TOTAL IS THREE SAMPLES
SHIPMENT __IS__ COMPLETE.

Relinquished By: (Signature)	Date	Time AM/PM	Received By: (Signature)	Date	Time AM/PM
			[signature]	5/12/95	0900 (AM)

Pink Copy = Client Yellow Copy = Manager White Copy = Lab

RIEDEL ENVIRONMENTAL SERVICES, INC.
CHAIN OF CUSTODY COMPLETION INSTRUCTIONS

Note: Always remember that each and every change to any item on the Chain-of-Custody must be lined through, initialed, and dated.

1. Project Name: Actual site where samples are collected.

2. Project Number: Actual number assigned to track events and costs of job.

3. Lab: Name of laboratory being utilized for the sample analysis.

4. Results To / Telephone # / Fax # /: Mailing address where sample results must be mailed. Also, phone number and fax number which correspond to mailing address being utilized.

5. Special Instructions:
   - Special Detection Limits: Have any specific detection limits been established for site ? If yes, they must be identified
   - Analyze each phase of sample: Yes or No.
   - Analyze a specific phase or phases of sample(s). Appropriate phase or phases
   - Analyze Sample: As is ____ Dry Weight ____ Wet Weight ____

6. All work to be performed per RFP: Refer to Riedel Purchase Order Number and Master Subcontract Agreement Number a. If no changes to RFP indicate N/A, b. If changes have occurred, indicate here, or attach additional documentation as required.

7. Sample Results Required By: Check appropriate box - 24hr, 48hr, 72hr, 5Day, Normal, or enter specific date required. Then indicate if by verbal, fax, mail, Fed Ex.

8. QA Data Package Required By: Enter date and time. Plus indicate whether by fax, federal express, or mail.

9. Lab ID # : Sample Number established by laboratory.

10. Sample ID # : Riedel site specific sample number.

11. Matrix: Identify if soil, water, sludge, sediment, etc.

12. Collection: Enter date and time sample was collected.

13. Container / Number of Containers / Size / Type: Enter number of containers, specific sample container size, and type. Example: 8-oz. Amber Jar

14. Preservative No.: From preservative box determine appropriate item number.

15. Test Method: Indicate which EPA or SW846 Method laboratory is to use for each parameter of each sample.

16. QA/QC Protocol: Must indicate which protocol is to be used. The area that indicates QA/QC Level I, II, III, and IV, you must indicate if the lab's QA/QC level is to be used or Riedel's Level, if different from RFP.

17. Preservatives: Choose item 1 through 7 and utilize in preservative number column.

18. Relinquished By: This requires the signature of a person relinquishing the sample. The date and time (a.m. or p.m.) must also be recorded.

19. Received By: This requires the signature of the person who receives the sample from the individual who relinquishes the sample. The date and time (a.m. or p.m.) must also be recorded.

20. Continuation Sheet: Must be completed in full when seven or more samples are taken.

21. **Any and all lines / items left blank: you must indicate an N/A for each and every line and / or item.**